

# NATIONAL MARINE SANCTUARY PROGRAM REAUTHORIZATION

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## HEARING

BEFORE THE

SUBCOMMITTEE ON OCEANOGRAPHY, GREAT LAKES  
AND THE OUTER CONTINENTAL SHELF

AND THE

SUBCOMMITTEE ON FISHERIES AND WILDLIFE  
CONSERVATION AND THE ENVIRONMENT

OF THE

COMMITTEE ON  
MERCHANT MARINE AND FISHERIES  
HOUSE OF REPRESENTATIVES

ONE HUNDRED SECOND CONGRESS

FIRST SESSION

ON

THE CURRENT STATUS AND FUTURE NEEDS OF THE NA-  
TIONAL OCEANIC AND ATMOSPHERIC ADMINISTRA-  
TION'S NATIONAL MARINE SANCTUARY PROGRAM

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# **NATIONAL MARINE SANCTUARY PROGRAM REAUTHORIZATION**

**THURSDAY, NOVEMBER 7, 1991**

**HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON OCEANOGRAPHY, GREAT LAKES AND THE OUTER CONTINENTAL SHELF AND THE SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT, COMMITTEE ON MERCHANT MARINE AND FISHERIES,**

*Washington, DC.*

The subcommittees met, pursuant to call, at 2 p.m., in Room 1334, Longworth House Office Building, Hon. Dennis Hertel (Chairman, Subcommittee on Oceanography, Great Lakes and the Outer Continental Shelf) presiding.

Members present: Representatives Hertel, Studds, Taylor, Hughes, Pallone, Hochbrueckner, Anderson, Jefferson, Davis, Ravelle, Goss, Coble, Gilchrest, and Bateman.

Also present: Representative Miller of Washington.

Staff present: Subcommittee on Oceanography, Great Lakes and the Outer Continental Shelf—Donna Napiewocki, Clerk/Professional Staff; Mike Quigley, NOAA Fellow; Debbie Dawson, Counsel; Brian O'Malley, Counsel. Subcommittee on Fisheries and Wildlife Conservation and the Environment—Lisa Murray, Research Assistant; Karen Steuer, Professional Staff; Will Stelle, Counsel. Subcommittee on Coast Guard and Navigation—Laurie Wilkerson, Counsel. Committee on Merchant Marine and Fisheries—Tom Kitsos, Senior Policy Analyst; Dan Ashe, Senior Professional Staff; Joan Bondareff, General Counsel; Chris Mann, Professional Staff; Lee Crockett, Professional Staff; Terry Schaff, Sea Grant Fellow; Robert Wharton, Professional Staff; George Pence, Minority Staff Director/Chief Counsel; Mark Ruge, Deputy Minority Staff Director; Tom Melius, Minority Professional Staff; Dave Whaley, Minority Professional Staff; Lisa Pittman, Minority Counsel; and Margherita Woods, Minority Chief Clerk.

## **OPENING STATEMENT OF HON. DENNIS M. HERTEL, A U.S. REPRESENTATIVE FROM MICHIGAN, AND CHAIRMAN, SUBCOMMITTEE ON OCEANOGRAPHY, GREAT LAKES AND THE OUTER CONTINENTAL SHELF**

**Mr. HERTEL.** We call the hearing to order.

This afternoon the Subcommittee on Oceanography, Great Lakes and the Outer Continental Shelf meets jointly with the Subcommittee on Fisheries and Wildlife Conservation and the Environment.

Today, we are here to examine the current status of NOAA's National Marine Sanctuary Program.

This program was established nearly 20 years ago under Title III of the Marine Protection, Research and Sanctuaries Act of 1972. The Act comes up for reauthorization next year and I hope that this afternoon's hearing will provide us with the information we will need to renew this popular and highly-valued program.

At present there are nine existing National Marine Sanctuaries and another four more await designation in fiscal year 1992. The Marine Sanctuary Program strives to protect and preserve our Nation's valuable Great Lakes, coastal, and marine resources. These include not only living resources such as coral reefs, but artifacts from our Nation's history, such as the final resting place of the *U.S.S. Monitor*.

Beyond protecting Great Lakes and ocean resources, National Marine Sanctuaries serve as living classrooms where we all might learn more about these resources and the critical need for their wise management.

The National Marine Sanctuary Program is a popular program. In fact, public interest and support for the program has prompted Congress to designate a number of sites as marine sanctuaries over the past few years. We hope to hear more about progress in those efforts from interested Members, who asked if they might speak today.

Despite wide public support of national marine sanctuaries, the program has not been met with much enthusiasm by either the Reagan or Bush Administration. This year Congress appropriated \$5 billion for the program—that amounts to \$1.7 million above the President's request. A recent independent review panel recommended that the program be funded at \$30 million per year.

With new marine sanctuaries awaiting establishment, the program's budget will be stretched further. We need to recognize this growing need as we draft legislation to renew a very valuable program.

I plan to make every effort to ensure that the National Marine Sanctuary Program receives adequate funding in the future to meet growing demands.

We can no longer afford to neglect the critical need to manage and protect our Great Lakes and ocean resources.

This of course is something that has been done for the last generation, worked on, but really it is for future generations, and every year that we lose means the more damage that can be done.

It is also a problem with the tightening budget situation as far as funding in the future. So the faster we move, the more adequate the funding can be. Because any damage that is done costs far more to correct than if it is prevented first. So we will take opening statements at this time from other Members of the committee, and then we will begin testimony.

Mr. Taylor.

Mr. TAYLOR. No statement.

Mr. HERTEL. The Ranking Member of the Full Committee on Merchant Marine and Fisheries, who has been a leader in this area, Bob Davis.

**STATEMENT OF HON. ROBERT W. DAVIS, A U.S. REPRESENTATIVE  
FROM MICHIGAN**

Mr. DAVIS. Thank you, Mr. Chairman. I am pleased to join your subcommittee today on this very important hearing. It is appropriate that we are talking about national marine sanctuaries, since they are a very import asset to the people of this country.

I am particularly happy to see Representative Fascell here to testify. I might say that you and I, Mr. Chairman, have been very interested in the marine sanctuary that is about to take place in Michigan, the first one ever on the Great Lakes. It is of course in my congressional district, Thunder Bay. I am also pleased to see that Trudy Coxe, who is going to testify later on, and who is the Director of the Ocean and Coastal Resource Management Program, is wearing a button that says, "I love Alpena." That is where this new national marine sanctuary is going to go. So I am pleased to see that we are holding this hearing and look forward to the testimony from all the witnesses.

Thank you, Mr. Chairman.

Mr. HERTEL. Mr. Ravenel, from South Carolina. Mr. Miller, a former Member of the committee who is joining us today.

**STATEMENT OF HON. JOHN R. MILLER, A U.S. REPRESENTATIVE  
FROM WASHINGTON**

Mr. MILLER of Washington. Thank you, Mr. Chairman, for allowing me to join you. As you know, I am on leave from this committee to serve on the Budget Committee, but I like to come back when there are issues of particular importance to Washington State, and this is certainly one of them.

As a matter of fact, tonight in my district, NOAA is holding a public hearing on their draft environmental impact statement for the outer coast sanctuary off the coast of the State of Washington, and NOAA and the State Department of Ecology in my State have just finished a draft plan for the Northern Puget Sound Sanctuary and that process is moving along.

This program is critical to ensuring the pristine waters and coastlines in my State are protected, and I look forward to the hearing, Mr. Chairman, and to our distinguished witnesses, including Congressman Fascell testifying today.

Thank you.

Mr. HERTEL. Now we will have a statement from the Chairman of the Subcommittee on Fisheries, Wildlife Conservation and the Environment, Mr. Studds from Massachusetts.

**STATEMENT OF HON. GERRY E. STUDDS, A U.S. REPRESENTATIVE  
FROM MASSACHUSETTS, AND CHAIRMAN, SUBCOMMITTEE ON  
FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRON-  
MENT**

Mr. STUDDS. Thank you, Mr. Chairman.

Just very briefly, this is, as Members know, a program with great potential and great promise, but in addition to that, based on a report issued this year by the National Marine Sanctuaries Review Team, it is also a program in great need. It is in need of

vision, as is this whole city, it is in need of commitment on the part of its parent agency, and it is certainly in need of mine.

In 1916 the Congress recognized the importance of setting aside and protecting special land-based areas of the United States for future generations when it, I was about to say we, established a National Park Service. It took another half century to establish a salt water equivalent through the National Marine Sanctuary Program. However, after 20 years, this program, as you know, remains in its infancy as evidenced by its funding levels and by its public stature. It is time for the program to mature, to gain the recognition it deserves and to serve as a model for marine ecosystem protection worldwide.

The obstacles that have historically hobbled the program are NOAA management and Federal funding and it's by no means clear which of the two will prove more intractable this year. The NOAA people testifying today I assume will speak to the first. I have introduced a proposal that might help us with the second by establishing the Ocean and Coastal Conservation Foundation. I look forward to addressing both as we proceed with the reauthorization, I will look forward to the testimony.

I will do my best to be here as much as I can. I apologize for the necessary absences back and forth.

Mr. HERTEL. Next we have Mr. Goss from Florida.

#### STATEMENT OF HON. PORTER J. GOSS, A U.S. REPRESENTATIVE FROM FLORIDA

Mr. Goss. Mr. Chairman, I apologize for my late arrival and will not delay the proceedings, but I, too say this is of great importance to my State and to my particular home district.

I am very pleased that we are moving forward on this and I look forward to some of the goals that you have espoused and the distinguished Chairman from Massachusetts espoused also.

Mr. HERTEL. Thank you.

#### STATEMENT OF HON. WILLIAM J. JEFFERSON, A U.S. REPRESENTATIVE FROM LOUISIANA

Thank you, Mr. Chairman. I welcome this opportunity to review and reauthorize what I believe is a very important Federal program, the National Marine Sanctuary Program, that has established effective mechanisms for the identification and long-term conservation and management of important marine areas, while promoting public education, research, recreation, and other compatible uses.

I am particularly encouraged to know that the Flower Garden Banks, a shallow water tropical reef in the Gulf of Mexico, is scheduled for official designation as a National Marine Sanctuary by early next year—coinciding with the 20 year anniversary of the National Marine Sanctuary Program. Flower Garden Banks, the northernmost coral reef in the United States, is a site of great beauty, habitat for abundant sea life, and a prime location for diving.

While I salute the long-awaited designation of Flower Garden Banks, I am troubled by two findings—findings that are not unique to the Flower Garden case. First, that the reason for the long delay in designation was not a lack of mandate, but a lack of will by the Administration—a situation that I hope this committee can address. Second, I am troubled by reports that Flower Garden Banks will have almost no operating funds after its designation early next year. This problem of underfunding was highlighted by the report of the Marine Sanctuaries Review Team and should be a central concern of this committee during reauthorization.

I look forward to working with this committee to strengthen the National Marine Sanctuary Program so that we can provide effective long-term conservation and management of marine areas of great natural and national value.

Mr. HERTEL. Our first witness, we are very honored to have is Chairman Fascell, who has been the leader for National Marine Sanctuaries, particularly the Florida Keys National Marine Sanctuary that was established in the 101st session of Congress. He has been a leader in this area for over 20 years and we need his guidance to help us; specifically what we should be doing in Florida. So, Mr. Chairman, we are happy to have you here.

**STATEMENT OF HON. DANTE B. FASCELL, A U.S.  
REPRESENTATIVE FROM FLORIDA**

Mr. FASCELL. Both chairmen of the subcommittees and members of the subcommittees, I have a prepared statement which I ask permission to include in the record.

I want to express my appreciation for the assistance and the wisdom of the committee in the creation of the Florida Keys National Marine Sanctuary. At least the designation part of the Florida Keys Sanctuary is finished, but I continue to be concerned about approaching environmental protection on a piecemeal basis. We do need to find a better answer and address the totality of the problem if possible.

I want to state my strong support for the sanctuary program, its reauthorization, and for H.R. 3694, a bill to create the Foundation for Ocean and Coastal Conservation in the United States. The case for these measures was well made in the statements by the two chairmen and if I were going to add anything to them, it would be that there is a great need to substantially increase the authorization of the sanctuary program. There may be other things that can be added to what the chairmen said about the necessity and the desirability of accomplishing what we want to do in this legislation, but their statements appropriately frame the debate.

There is more involved in my judgment than maintaining the primeval pristine environment. There are resources that are vital to the needs of our society, but we must do our best in every way possible to husband the available resources. We must become better stewards now that we have a clearer understanding of how delicate the balance is between the air, the water, the land, and ourselves.

I get just as great a charge looking at a pristine sight, smelling clean air, or looking at an ocean that doesn't have garbage and tin cans in it as anybody, but it is more than an esthetic question. We are talking about the survival of the human race. We need to do everything that we can that is sensible and reasonable, laying in balance all of the conflicting interests involved at the local, national, and international levels. Otherwise, in the normal course of events, without even any ill motive, some of our most sensitive ecosystems will be destroyed.

I can't express deeply enough, or strongly enough, how much I appreciate the action of this committee in the creation of the Florida Keys National Marine Sanctuary and to thank you for all the other work that you are doing in the preservation of our resources, our environment, and our way of life. You are providing leadership on the stewardship of our resources, but there are more decisions, some of them controversial, which you will be confronted with

during the reauthorization process. One of these questions, and one I feel strongly about, is prohibiting certain industrial activities in or near a sanctuary.

We have had a long, hard struggle with these questions in the past, and I suspect will continue to struggle with them. I see nothing wrong with that, but I think we need to make definitive decisions as fast as possible when possible, carefully deliberate those that are more complicated, and then make the hard choices on balance. That is the honest and proper way to handle these matters. However, in the case of offshore drilling, I think we ought to prohibit it anywhere near a national marine sanctuary.

I am not ignoring the economic aspects, or other aspects, on the importance of using our resources to benefit mankind. We have to face those hard issues and when we get to them, use the best judgment we can and I would come down on the side of saying that certain industrial activities like offshore drilling near a marine sanctuary is not really a very wise policy.

I would also like to say, and I know the committee is very much aware of this because it was illustrated by the Florida Keys National Marine Sanctuary process, is the sensitivity of people who think a resource is being taken away from them.

This feeling can't be ignored. It doesn't make any difference how wrong you think they are or how bad you think the activity is, they have a right to be heard. What is required, it seems to me, is total transparency in the decision making process with everybody being able to have an opportunity to comment. The final decision may not be popular, but at least it was in an inclusive manner.

In the Florida Keys Marine Sanctuary Program, we are trying a process of bringing in all elements together in the formulation of the management plan. We hope to resolve the burning issues and formulate and implement a sensible management plan that the majority of the people can not only live with, but will actively support.

I don't think we can ever reach 100 percent satisfaction, but that must be our goal. It is not easy, and after 40 years I found out it is still tough to be a leader, no matter what it is you are trying to accomplish. You never know whether people are following you or chasing you, but we should not fear opposition. I have had my share of opposition, but I want to tell you, though, most of the time it has been on environmental issues. I have had opponents come after me just on environmental questions like national parks, sanctuaries, monuments, or refuges. On the other issues, you can debate and argue their merits, but resource management always seems to be so emotional.

That has been my experience, so my hat is off to you guys because you are frequently debating these issues. Every once in a while, I get involved in these issues and it reminds me of how delicate and difficult they can be, but you are with this all the time. I have great admiration for what you are doing; I express my deepest appreciation; and you can be sure of my support for your legislation and for the National Marine Sanctuary Program.

Mr. HERTEL. Thank you.

We have had some of those angry people up here from Florida.

Mr. FASCELL. Well, they cooled off a little bit, Mr. Chairman.

[The prepared statement of Mr. Fascell follows:]

PREPARED STATEMENT OF HON. DANTE B. FASCELL, A U.S. REPRESENTATIVE  
FROM FLORIDA

Mr. Chairman, I appreciate having the opportunity to discuss the future of the National Marine Sanctuary Program. A little over a year ago, the Congress approved legislation which I authored to establish the Florida Keys National Marine Sanctuary. I, again, would like to thank you for your assistance and strong support with that legislation.

In doing so, the Congress made a strong statement of support for this program and for protecting our marine ecological resources. Passage of this measure was the first time that Congress legislatively designated a national marine sanctuary. While I am pleased that the precedent was set in order to protect the coral reefs of the Florida Keys, I believe that this act ushered in a new era for this important program.

Largely dormant for most of the 1980's, the National Marine Sanctuary Program has recently experienced a flurry of expansion-related activity. I believe that this recognizes the need to improve and enhance the only Federal program solely designed to protect, preserve, and manage our sensitive marine resources. It has been called the underwater equivalent of the National Park Service, but it has never been provided with adequate resources to fairly apply that analogy. The challenge we face is how we can make this a credible comparison.

With the Program in a transitional phase and with next year's reauthorization approaching, this hearing is both timely and valuable. The National Oceanic and Atmospheric Administration (NOAA) recognized this when it created the Marine Sanctuaries Review Team in order to study the program and make recommendations on its future. The review team issued a bold statement of what the program can be, and I want to highlight some of its recommendations which deserve to be seriously considered:

The Administration should request, and the Congress provide, a budget adequate to accomplish the purposes of the individual sanctuaries, to establish new sanctuaries, and to administer the program. For these functions, an adequate budget would be on the order of \$30 million.

The program must attract, train, and support effective sanctuary managers. Once in place, managers would be encouraged to work closely with local groups and institutions.

Priorities should be established to establish the Florida Keys and the sanctuaries on the central California coast as the centerpieces of this renewed effort.

NOAA should develop clear research and education agendas for the Marine Sanctuary Program. These agendas should be fully integrated with the research and education agendas of other NOAA agencies and also, to the maximum extent possible, integrate these agendas with those performed outside NOAA by other Federal agencies, and private and international organizations.

NOAA should explore the possibility of a national nonprofit organization that is in a position to advise and encourage the marine sanctuary program; local cooperating organizations can also be of great value to the operation of sanctuary programs.

I would like to briefly reflect on my experience with the Florida Keys National Marine Sanctuary Act and what I feel are important factors in order for the program to succeed. The residents of an area being considered for inclusion cannot be allowed to feel that the resource is being taken away from them. I am very encouraged by the agreement NOAA has reached with The Nature Conservancy to establish a volunteer network at the Florida Keys National Marine Sanctuary. Cooperative management approaches that resemble partnerships are, in my opinion, crucial for the success of individual sanctuaries.

Another issue which was discussed were the activities which may be restricted by the implementation of the management plan. This is a sensitive subject, but those activities found to be a clear and present danger to the health and vitality of the resource will need to be regulated to some degree. In large sanctuaries like the Florida Keys or Monterey Bay, zones can be employed to accommodate different users.

The Review Team called for greater flexibility among sanctuaries to meet their individual needs. Certain activities may be treated differently among sanctuaries, but I think the subcommittee, during the reauthorization process, should give serious consideration to restricting heavy industrial activities in, and possibly near,



every sanctuary. For instance, I do not believe there is a place for offshore oil and gas drilling in or near areas we are trying to protect for their ecological splendor.

For too long, we have abused our oceans and coastal waters. The "out-of-sight, out-of-mind, not-a-problem" mentality must end. The threat of offshore oil drilling, the tragedy of Prince William Sound, and the sight of beach closures are among the factors which have contributed to the public's insistence that more be done to restore and protect our marine resources. There is an incredible amount of diversity to be found in our coastal waters; the public demands that more be done to restore those areas that have been spoiled and preserve those that have not been; and the Sanctuary Program can, and should, play a pivotal role in our efforts.

Mr. HERTEL. Well, I think you know you were right in saying that everybody should have their say and they did. I think that the vast majority of people in Florida feel very strongly about supporting and protecting the Keys.

The right thing was done; it just took longer than we hoped it would. But I think over in the Foreign Affairs Committee that you chair, you have some tough problems too, and some angry people from around the world.

Mr. FASCELL. Mr. Chairman, may I make an additional remark here for your consideration.

Perhaps one of the most important international environmental meetings will take place in Brazil in 1992. I am not sure exactly where it stands, but I believe the U.S. delegation is currently being formulated. While every conservation organization in the country is probably seeking to be an observer or part of the U.S. delegation, I hope that your committee and the Foreign Affairs Committee will have strong representation, both at the staff and Member level.

Mr. HERTEL. We would like to work with you. I think it is very important. And again, we will need your guidance. You have worked with some leaders from around the world that that will be I think very important regarding that conference.

Before we have to vote on the Floor, are there questions for the Chairman? Any questions at all?

Thank you very much.

Mr. FASCELL. Thank you.

Mr. HERTEL. We will recess the hearing for the vote.

[RECESS]

Mr. HERTEL. We will resume the hearing. We are honored to have as our second witness the Honorable Leon Panetta, Chairman of the Budget Committee who represents the beautiful Monterey Bay area, and who has been a leader in establishing a sanctuary there.

Leon, thanks for coming.

#### STATEMENT OF HON. LEON E. PANETTA, A U.S. REPRESENTATIVE FROM CALIFORNIA

Mr. PANETTA. Thank you, very much, Mr. Chairman, and Members of the committee.

I want to thank you for the opportunity to have the chance to appear before you and I would like to ask that my statement be made part of the record, and I will try to briefly summarize it.

Mr. HERTEL. Without objection.

Mr. PANETTA. First of all, my thanks for having this hearing on the status of the National Marine Sanctuary Program. I really be-

lieve that the program is one of the most important, successful, natural resource protection programs that we have. We have been fighting, as Gerry Studds knows, we have been doing this for a long time and all of you recognize the battle of how you try to provide good stewardship in this country which means knowing what to preserve and knowing what to protect.

And the battle with regards to offshore drilling sometimes takes on the battle of trying to establish temporary moratoriums on proceeding with offshore drilling approaches. I really think that the sanctuary program gives us the opportunity to establish and identify those areas that really require permanent protection. And this is the way to go. And for that reason, I just think that this is a program that this committee and the Congress and the Nation ought to be very thankful for, because I think it does provide that kind of protection.

I want to address, if I could, three specific concerns that I have with regards to the program. The first is with regards to the delays that are involved now in moving with sanctuary designations, and obviously, as you all know, Monterey Bay is one of those that is in the process of being designated as a national marine sanctuary. There have been efforts to try to do this as long ago as when I first came to Congress, which is about, over 15 years ago, 14 years ago, that we have been trying to do this.

And finally we got legislation passed with the help of this committee to designate Monterey Bay as a sanctuary, and that was supposed to happen by December 31, 1989. Obviously, that hasn't happened. And we are now in the process, NOAA informs us, after having gone through the public hearing process, the draft environmental impact statement process, we have been told that we shouldn't expect release of this final management plan until early next year, which means that instead of December 31, 1989, we won't even have a designation by December 1991, and it may be late in 1992 before that finally happens.

Obviously, that is very frustrating for those of us that wanted to proceed with the sanctuary designation, and also for the public that is concerned about this issue. I was even exploring the possibility of seeking an amendment to basically say that if within a certain timeframe this doesn't happen, I am going to proceed, or the Congress ought to proceed to formally designate it as a sanctuary, using the draft regulations and the boundaries that we would propose for the sanctuary.

I am not going to do that, because frankly I do want to cooperate with NOAA in trying to get this process done, and I know that they received a number of comments and I know that they have some resource limitations within their own office to try to accomplish the job. But if we are going to enact, designate areas as national marine sanctuaries, and in this case I guess you have Cordell Banks, Flower Garden, Monterey Bay, and Western Washington, the reality is that we have to, we have got to put some pressure on to get the job done.

I know lack of resources is part of the problem, and I have been working very closely with the Subcommittee on Appropriations to try to identify additional resources for NOAA so that they can proceed, and in fact, we were able to provide the largest funding we

ever had for the NOAA office, and so they really do have I think the opportunity now, with the resources, to proceed ahead.

I know there is another problem, which is the second issue I want to address, which is the whole problem of regulation of oil and gas activities within the sanctuary's borders. We are running into the same old problem, which is that every time we identified a sanctuary we run into problems within the Administration of hesitancy to allow for a prohibition of oil and gas drilling between the boundaries of the sanctuary.

Almost every time a sanctuary has been proposed, there has had to be a fight with the Administration with regards to this kind of proposal. Representatives Boxer and Bosco had to seek legislation to prohibit oil and gas activities in the Cordell Bank Sanctuary. I fought a six-month protracted battle with the Office of Management and Budget and the Department of the Interior to obtain an oil and gas ban in the draft regulations for Monterey Bay.

Mind you, we have no oil and gas drilling in that area; it is not even incorporated in the five-year plan. The President has put it off until the year 2000, and we have had a hell of a battle just trying to get a ban included in the proposed regulations.

NOAA did recommend finally the full prohibition of oil and gas activity within the sanctuary's boundaries. But I think part of the problem, the reason we are going to have a protracted process here is that once the regulations proceed to OMB, they are going to seek out the office in the Interior Department and we are back into another battle over the whole issue of what we do about oil and gas drilling in a sanctuary.

I think it is extremely important that you move the legislation that says once you have established a national marine sanctuary, oil and gas drilling ought not to be in a sanctuary. I think the two are diametrically opposed to each other, very frankly. Now if you have some existing oil and gas drilling, then you may want to recognize that.

But where you have no oil and gas drilling, my God, you are establishing a sanctuary, I think you ought to include that kind of protection within that area. So I would strongly request again your assistance in trying to move forward with the designation on Monterey Sanctuary.

I would urge you to adopt legislation that would prohibit new oil and gas activities within national marine sanctuaries, and I would also urge you to look at a proposal for a sanctuary that I have proposed along the southern part of the central California coast, which I think also includes some very, very unique resources, and is an area—it is basically the southern area of the Big Sur Coast which ought to be protected as part of a sanctuary, and I thank you very much for this opportunity, Mr. Chairman.

Mr. HERTEL. Thank you very much for coming.

[The prepared statement of Mr. Panetta follows:]

PREPARED STATEMENT OF HON. LEON E. PANETTA, A U.S. REPRESENTATIVE  
FROM CALIFORNIA

Chairman Hertel and Chairman Studds, thank you very much for the opportunity to appear before you today to discuss the reauthorization of the National Marine Sanctuary Program. I have been heavily involved in this Program for a number of

years and am one of its strongest supporters in the Congress. I truly believe that the National Marine Sanctuary Program is one of our Nation's most successful and important natural resource protection programs and I commend you both for calling this hearing on the reauthorization of the Program.

I have a number of issues relating to the National Marine Sanctuary Program which I would like to discuss today. Specifically, I would like to discuss my concerns with the delay in the designation process for the Monterey Bay National Marine Sanctuary, recommendations on the issue of oil and gas regulations in national marine sanctuaries, and a request for action on legislation I have introduced to designate the California Central Coast National Marine Sanctuary, H.R. 3099.

Regarding my concerns with Monterey Bay, as many of you know, I have been involved in efforts to designate the Monterey Bay as a National Marine Sanctuary since I came to the Congress more than 14 years ago. It has been a long time in coming, but with the strong support of this committee and a significant effort by the National Oceanic and Atmospheric Administration (NOAA), we are very close to having this Sanctuary designated.

The 1988 reauthorization of the National Marine Sanctuary Program (Public Law 100-627) required NOAA to designate the Monterey Bay National Marine Sanctuary by December 31, 1989. Obviously, NOAA has not been able to meet this deadline. The draft environmental impact statement/management plan (DEIS) for the Monterey Bay Sanctuary was released in August of last year and I have been told by NOAA officials not to expect to see the release of the Final Management Plan for Monterey Bay until early next year.

To be quite frank, I am terribly frustrated with the seemingly endless delays I have encountered, and continue to encounter, with the designation process for this Sanctuary. I even gave serious consideration to offering an amendment to the fiscal year 1992 and 1993 NOAA Authorization Bill that would have mandated the actual designation of the Monterey Bay Sanctuary. The amendment I drafted would have required NOAA to submit the Final Management Plan by February and stated further that if this deadline was not met, the Sanctuary would have been designated legislatively, with particular boundaries, and an oil and gas prohibition throughout the Sanctuary.

After further consideration, I decided not to offer this amendment out of deference to the efforts of NOAA to successfully complete the administrative designation process. I do, however, reserve the right to offer this amendment at a later date, if the efforts to complete this designation process once again become bogged down in the Administration's bureaucracy.

As noted above, the reauthorization of the National Marine Sanctuary Program required the designation of four new national marine sanctuaries (Cordell Banks, Flower Gardens, Monterey Bay, and Western Washington) by June 30, 1990. Not one of these sites was anywhere close to meeting its required designation deadline. To a large degree, these delays can be attributed to a lack of resources available to NOAA. In recognition of this problem, I have led annual efforts to fund the National Marine Sanctuary Program at its fully authorized level and would encourage this committee to significantly increase the authorized level of funding for this Program during its consideration of the Program's reauthorization. I will be the first to admit that it is unfair of the Congress to place strict designation deadlines on NOAA and not provide the agency with adequate resources to meet these dates. I would also support the consideration of proposals like the legislation authored by Chairman Studds to create alternative sources of funding for the Program and commend the Chairman for pursuing this legislation.

The National Marine Sanctuary Program's lack of financial resources is a significant problem. Yet after many years of experience and frustration with this Program, it is clear to me that the root of its problems is heavily linked to the Administration's refusal to appropriately address the regulation of oil and gas activities within a sanctuary's borders. Thus, I would strongly encourage this committee to consider amending the Marine Protection, Resources and Sanctuaries Act (MPRSA) to prohibit all new oil and gas activities in national marine sanctuaries during its reauthorization of the National Marine Sanctuary Program.

Virtually every time a sanctuary is proposed to be designated, Members of Congress have to fight the Administration for an oil and gas ban in the sanctuary, which by definition is an environmentally significant and sensitive area. Representatives Boxer and Bosco had to seek legislation to prohibit oil and gas activities in the Cordell Bank Sanctuary, I fought a six-month protracted battle with the Office of Management and Budget and the Department of the Interior to obtain an oil and gas ban in the draft regulations for Monterey Bay, and now Representative Unsoeld

and others find themselves fighting a similar battle with the western Washington site.

In the case of Monterey, NOAA had recommended that a full prohibition on oil and gas activities within the Sanctuary's boundaries be included in the draft regulations for the site. Because of objections to the oil and gas ban by the Departments of the Interior and Energy, OMB directed NOAA to re-evaluate the Monterey regulations to accommodate Interior and Energy's concerns. Spokesmen for the Department of the Interior publicly suggested that the boundary lines of the Monterey Bay Sanctuary be drawn in such a way that potential oil and gas drilling sites would be outside the designation area. This is ludicrous. To permit oil and gas considerations to be the foremost concern when drawing sanctuary boundaries is to violate the purpose of the entire National Marine Sanctuary Program. Sanctuary boundary lines must be drawn to ensure the preservation of the marine resources the Sanctuary was established to protect—period.

While I can understand why it may be appropriate to allow existing oil and gas activities to continue in a new national marine sanctuary, I see no reason why the Administration, in keeping with the purposes and policies of the MPRSA, would be justified in promulgating regulations which permit never before existing oil and gas activities to be conducted within a national marine sanctuary.

I urge the Members of this committee to preserve the integrity and purpose of this program by lending their support for an amendment to the MPRSA to prohibit new oil and gas activities in national marine sanctuaries.

Lastly, Chairman Hertel, I would like to request your assistance in pursuing legislation I have introduced to designate the California Central Coast National Marine Sanctuary, H.R. 3099.

The marine area of the central coast of California protected under this legislation possesses the ecological, historical, recreational, and educational qualities which make it an area of national significance and a beneficial addition to the National Marine Sanctuary Program.

This coastal area, which runs mostly along San Luis Obispo County, represents one of the most significant marine ecosystems along the Nation's west coast. It has a rich variety of sensitive coastal habitats including significant wetlands and estuaries as well as rocky intertidal zones and subtidal rocky reef communities.

The area is home to many threatened and endangered species including the California sea otter, seven endangered species of whale, and four species of sea turtles, and is also a major feeding and resting area for migratory birds protected under international treaties.

One of the more significant resources of the area is the Nipomo Dunes Complex which have been designated as a National Natural Landmark. The Nipomo Dunes Complex contains the largest coastal dunes in California and have immeasurable ecological and scenic value, high educational, scientific, and recreational importance, and represents one of the few coastal areas in the State still in an undisturbed condition.

In addition to having numerous sensitive marine resources worthy of preservation and research, the central coast also has archaeological significance as it was the home of several Chumash Indian village sites for at least 9,000 years. This is the densest area of 9,000-year-old sites known along the western contiguous States to the Canadian border. Archaeologists have discovered literally hundreds of Chumash sites in these coastal waters and they are the subject of ongoing study.

Despite the importance of this coastal area, its well-being is being threatened by a variety of pollutants including the drainage of pesticides and other toxics into the waters and the expanding industrial uses of the waters. Of particular concern is the continual threat of offshore oil and gas development in this sensitive marine area.

I believe that the central coast of California is an important, significant, and sensitive marine resource worthy of the stature and protection of a National Marine Sanctuary designation and that the Program would benefit by its addition. The reauthorization of the MPRSA provides a timely and appropriate vehicle for the consideration of this legislation. As such, I would hope, and respectfully request, the committee consider including H.R. 3099 as part of its reauthorization of the Marine Protection, Resources and Sanctuaries Act.

Chairman Studts and Chairman Hertel, thank you again for the opportunity to testify before you today. I very much appreciate the opportunity to share with the committee my views on the National Marine Sanctuary Program and look forward to working with you and the Members of the committee on the reauthorization of this critical coastal protection program.

Mr. HERTEL. I notice a busy day for you with the Civil Rights Bill on the Floor too, with your leadership in that area. I have no questions, because I agree with you, you know it. If you want to do that amendment, I will help you.

I also agree there shouldn't be oil and gas drilling allowed, and what we call a sanctuary should be a sanctuary. I am also interested in the second one that you talked about in Big Sur, I agree with you, but I would like to know more about it as far as details.

We are frustrated too by how long it is taking. We work closely with the people at NOAA, we respect their work and how many responsibilities they have. But we are frustrated.

If it is not an amendment this time, if you have other language that you are interested in looking at for the NOAA bill, let us know, we will help you.

Mr. PANETTA. I appreciate it.

Thank you.

Mr. HERTEL. Other questions?

Mr. DAVIS. I have got a great idea. We have a number of Congressmen that are trying to establish sanctuaries. And Leon, I propose that we have a congressional exchange day where I come and visit your proposed sanctuary and you come and visit mine. You can come on February the 15th, and I will go February the 15th to yours. And you can walk out on the ice and be right on top of mine, because it is a little bit cold out where mine is.

Mr. PANETTA. I have a feeling here I would rather you visited mine during that time of year.

Mr. DAVIS. Well, we will certainly try to help you.

Mr. STUDDS. Do I get to choose? Leon, as we all know, represents the second most beautiful coastal district. It is fairly impressive, some of those hills on the water, they really are.

I assume your presence here and your renewal to your commitment to this program means that we can look for better things in the budget.

Mr. PANETTA. Absolutely. Absolutely. You have my full cooperation in that effort. I know that we have had, actually Neal Smith has been very good, as I said, in this last budget with regards to NOAA, and I hope that we can continue to do that.

I do—I am always concerned that when we face the constrictions that we have, it is the resource areas that are going to get hit the hardest as you tighten up. And so this is an area that I have a particular concern about, and I would be more than happy to work with you and Neal Smith in trying to ensure that we get full funding.

You can rest assured the budget will provide that funding.

Mr. STUDDS. Beautiful. Thank you. Thanks for your leadership.

Mr. HERTEL. Thanks very much, Leon.

Mr. PANETTA. Thanks very much.

Mr. HERTEL. Now we have Ms. Trudy Coxe, Director of Office of Ocean and Coastal Resource Management, NOAA; Gary Magnuson, Vice President for Programs, Center for Marine Conservation; William DuBose, Vice President, National Ocean Industries Association; Lee Weddig, Executive Vice President, National Fisheries Institute; and Frank Potter, Co-Chair, Marine Sanctuaries Review Team.

We will submit all your statements for the record and we would like you to summarize your testimony and talk to us about what you think we need to know.

So I will ask Ms. Coxe first.

STATEMENTS OF TRUDY COXE, DIRECTOR, OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, ACCOMPANIED BY MARGO E. JACKSON, ASSISTANT GENERAL COUNSEL FOR OCEAN SERVICES, NOAA; GARY MAGNUSON, VICE PRESIDENT FOR PROGRAMS, CENTER FOR MARINE CONSERVATION; WILLIAM DUBOSE, VICE PRESIDENT, NATIONAL OCEAN INDUSTRIES ASSOCIATION; LEE WEDDIG, EXECUTIVE VICE PRESIDENT, NATIONAL FISHERIES INSTITUTE; AND FRANK POTTER, CO-CHAIR, MARINE SANCTUARIES REVIEW TEAM

#### STATEMENT OF TRUDY COXE

Ms. COXE. Thank you very much, Mr. Chairman. I want you all to know that today is my birthday, and I cannot think of a better way to grow old—

Mr. HERTEL. Happy birthday.

Ms. COXE [continuing]. Than to spend a day before a congressional subcommittee.

Mr. HERTEL. You might be the first person who has ever said that in history.

Ms. COXE. We thank you very much for giving NOAA the chance to talk about our Marine Sanctuary Program, and before I get too far into my testimony, I do want to introduce several people.

Bill Harrigan is the new Acting Chief of our Sanctuaries and Reserves Division, Commander Harrigan, and Margo Jackson is our Legal Counsel, and Michelle Richart is here from Michigan. She will be in charge of the Thunder Bay Sanctuary as it goes through the designation process.

I have to tell you that I speak with great sincerity when I say that NOAA is very grateful for the support that you have shown to the program over the years. We thank you very much for that support.

It is the kind of support that has come from Congress, from the Administration, and from the American public that I think has driven the program forward at a very remarkable pace in the last few years.

Currently, as has been mentioned by Congressman Davis, there are nine sanctuaries in the system. One is located as far away as American Samoa; another, the *Monitor*, pays tribute to the Civil War, and the Nation's most expansive designated sanctuary, the Florida Keys, contains the world's third largest tropical coral reef system.

I think without a doubt these sites are very special; 1992 is going to be a landmark year for the sanctuary program, primarily because of the reauthorization, but almost as importantly, because of the addition of four new sites into the system, including the Flower Garden Banks in the Gulf of Mexico. The final designation documents are under NOAA review, and we are hoping that we can

have a ceremony for the Flower Garden Banks National Marine Sanctuary in early 1992.

Our second new sanctuary will be Stellwagen Bank, which is located off the State of Massachusetts. We are working on the final environmental impact statement for that, and we expect to have it done this spring.

Third, is the Olympic Coast, for which there are public hearings starting tonight, and more to be held in Washington, D.C.

Finally, Monterey Bay will be our fourth new sanctuary. I was very interested to hear from Congressman Panetta and can respond by saying to him and to the subcommittee that in the case of Monterey Bay, we have had a tremendous amount of support for the largest boundary. I think NOAA received nearly 6,000 comments from the public on this proposal. One of the reasons why it takes so long for us to do our work is because we have got to talk back to all these people. We are completing a review of these comments, and as a result of public interest, we are considering all of the alternatives. We expect that the final environmental impact statement for Monterey to be released some time in winter or spring.

Further, you are also going to see on your desks in early December, from our office, the Hawaiian Kahoolawe Study, for which there were very well attended public hearings in August. Finally, NOAA continues on with the Florida Keys National Marine Sanctuary management plan and with the collection of data that will make that sanctuary one of the best in the world.

I have to add here that the sanctuary program has enjoyed tremendous public enthusiasm and support in recent years. As I mentioned above, Californians flocked to express their support for the Monterey sanctuary; the same kind of enthusiasm has been expressed in Massachusetts.

I think we got 20,000 signatures on a petition from people in that region saying that they very much wanted to have a sanctuary in Stellwagen. In Michigan where last week's public hearings were held for Thunder Bay, the Nation's first sanctuary in the Great Lakes, again we received great, overwhelming support. There has been this kind of support at each and every site that is under consideration.

I further want to emphasize that the public support hasn't been merely vocal. The sanctuary program is one of those programs that for wonderful reasons prompts people to help with the management of these special places.

For example, divers and commercial dive operators in Florida have helped expand NOAA's ability to get the job done by assisting in the installation of mooring buoys so that even greater numbers of the public can enjoy the reefs without destroying them.

I think of the people who have reported violations to us serving in a sense as citizen watchdogs on our behalf and helping us so that we can take action where it is needed.

I think of successful stories such as those in the Channel Islands where thousands of school children a year have taken part in interpretive and interactive educational opportunities. So it is a real hands-on program that we are all very proud of as we not only have managed these sanctuaries but also worked on the designa-



tion of so many in a very short period of time. As a result, we have certainly developed a greater understanding of what is needed for better sanctuaries. This insight is put to use in developing legislation for next year's reauthorization.

Our goal is to improve the sanctuary program, to manage and protect coastal and ocean resources in a more efficient manner. We look forward to working with you in the reauthorization, along with people from both the private and public sectors, to create a legislative proposal that can make everyone happy.

We are also very interested in the problem of harm to natural resources and recovering damages to compensate for that harm. In this regard, we are working with States and Federal trustees to determine how to recover funds, and then to use them for restoration and management purposes.

In conclusion, we look forward to the next stages of the sanctuary program, designation of necessary sanctuaries, revitalization of the site evaluation list, which is a big project for us and reauthorization of the program. We hope to work very closely with you.

Thank you.

[The prepared statement of Ms. Coxé can be found at the end of the hearing.]

Mr. HERTEL. Thank you.

Mr. Magnuson.

#### STATEMENT OF GARY MAGNUSON

Mr. MAGNUSON. Mr. Chairman, Members of the subcommittees, good afternoon. Again, thank you for this opportunity, and I appreciate your receiving my written statement for the record.

Mr. HERTEL. Without objection.

Mr. MAGNUSON. Again, my name is Gary Magnuson. I am Vice President for the Center for Marine Conservation, which is a public nonprofit organization, dedicated to maintaining the health and diversity of marine life.

I am proud to say that over the last 10 years, the Center has been very active in this program. In fact, tonight we are one of the few groups that is testifying at the outer Washington coast proposed sanctuary NOAA hearings. And I join my colleagues and appreciate the opportunity to be before you today.

As for myself, I go back to the early 1980's when I presented testimony on the Channel Islands National Marine Sanctuary, for, at that time, Governor Brown and the State of California. The program has come a long way, but I think we all will agree the program can go a lot further.

To assist in your deliberations and oversight hearings, which will set the stage for reauthorization hearings and legislation later, I brought with me and provided to the committee staff a video which the Center for Marine Conservation prepared just this past year on the program. Two copies for each subcommittee have been provided to make available to the Members upon their request.

The title of the 30-minute video is "Inherit the Sea, America's Marine Sanctuaries," and I hope it proves useful to you. It is very difficult at times to express in words the beauty of these areas that

have been set aside or proposed to be set aside for future generations, and we thought that the video would best serve that purpose.

As I said before, I am proud of the Center's active involvement, be it Stellwagen, Monterey, outer coast of Washington, and am looking forward to Thunder Bay.

I must concur with the comments made by the chairmen of both subcommittees in that one of the key issues here is funding. I was surprised, maybe not too surprised, but I wish that Ms. Coxé had raised it early in her testimony.

But the key to this program is funding. I certainly agree with her that the ground swell, or should I say sea swell of public sentiment for the program exists. It is becoming a well known program around this country, especially in our coastal areas. I also think that one of the reasons this hearing is being held today is in part in response to that ground swell or sea swell of support.

But I might point out and center on this issue of funding. Since its inception, the National Marine Sanctuary Program has been severely handicapped by inadequate funding. When originally estimated in 1972, the program was authorized at \$10 million for the first four years. This initial authorized funding level is probably in keeping with the program's mandate of resource protection and consistent with the cost of properly implementing the program.

However, despite this, no funds were actually appropriated for the program until fiscal year 1979. Between fiscal year 1979 through 1985, appropriations increased from \$500,000 to about \$3 million. However, through the dark days of the mid-1980's, this went down to \$2.5 million.

Since the 1988 reauthorization, we have seen a steady increase in funding. I wish Mr. Panetta was still here, because I would like to commend him and also several other Members of these subcommittees for prevailing and being active in their support for the funding of this program and seeking the necessary support of your House colleagues for an increased funding of a little more than \$5 million for the current fiscal year.

Although the funding for this program has nearly doubled within this span of time that I am talking about, it still remains inadequate. Given all that is going on, the current designations, the pending designations, let alone the Key sanctuary, which in Mr. Potter's report, which I am sure he will be talking about later, it is estimated the Keys alone will require seven to eight million dollars.

That is two million more than our current appropriation. Not saying that the Keys is undeserving of that money. It puts a strain on other designations which are either in place or will come on later in the year.

For instance, in my testimony, I highlight that the Monterey Bay Sanctuary, when it is designated, of the current appropriation, only \$150,000 would be made available to implement the management plan for that area.

Flower Garden Banks, hardly any money, and for Stellwagen, it has been estimated that of the current appropriation, only \$100,000 will be available.

My testimony also touches on that this program, much like the Coastal Management Program, which I am familiar with, is one of the best bargains in the Federal budget.

For little more than \$5 million that has been appropriated, the area that is covered by this program is 5,200 square nautical miles. You add in the pending designations of approximately 6,500 square miles, and you have an overall area of 11,700 square nautical miles. Quite an area to cover with little more than \$5 million.

Put in a different perspective, given the entire acreage per square mile area of the U.S. EEZ, the area for sanctuaries pending and existing amount to little less than .25 percent of the U.S. EEZ area.

In my remaining time, I would like to touch on three additional points in my testimony. There should be, and we look forward to addressing in the reauthorization, one, the clarification of NOAA regulatory authority over activities that may affect the marine sanctuary, but occur outside sanctuary boundaries.

Two, we look forward to the definition of terms of liability within the marine sanctuary resources; and three, the need for visitor and interpretive centers to complement sanctuary designations.

In your letter of invitation to me, you also asked me to comment on Mr. Studds' bill, H.R. 3694, the Foundation for Ocean and Coastal Conservation. Having over the past several years been very familiar with the budget trials and tribulations for NOAA programs, especially in the coastal program area, I couldn't agree more with what this Foundation bill objective proposes to be.

I also agree with the targeting nature of where this money should go. It seems like the programs that are highlighted by this Foundation proposal are the very programs that we have had troubles with between Congress and NOAA time and time again. I think this gets to the programs that need it most, and I compliment Mr. Studds for his legislation.

One last comment. The unprecedented amount of public support that is occurring today, both in the State of Washington and here, over the last several months, and probably will be occurring in the months ahead for this program, has been documented. It should serve us all well as we move towards the reauthorization of this important program.

The Center for Marine Conservation looks forward to working with you on that. Thank you.

[The prepared statement of Mr. Magnuson can be found at the end of the hearing.]

Mr. HERTEL. Thank you.

Mr. DuBose.

#### STATEMENT OF WILLIAM DUBOSE

Mr. DuBOSE. My name is Bill DuBose. I am the Vice President of the National Ocean Industries Association. NOIA is a national trade association that represents over 300 companies in all aspects of offshore oil and gas development.

My comments today are also endorsed by the American Petroleum Institute. NOIA supports the designation of national marine sanctuaries for the purpose of protecting unique and significant

marine resources, as is provided for in the Marine Protection, Research and Sanctuaries Act.

We believe that NOAA's regulation and administration of the program should remain intact. Congress and NOAA have established a very orderly and rational process that provides for evaluating and designating appropriate sites for marine sanctuaries.

We would oppose any attempt, however, to relax or reduce these standards for sanctuary designation. In particular, we strongly oppose congressional intervention in the process. Congressional designation of marine sanctuaries undermines the entire program and takes NOAA funding and personnel away from the areas that NOAA has placed on its site evaluation list.

Past congressional sanctuary designations have disregarded the selection criteria and the existing regulatory process, including the public input process and environmental impact statements as required under NEPA.

Congress should recognize the value of the sanctuary site selection and designation process that it created under the Marine Sanctuaries Act. We are also, of course, opposed to the use of the sanctuary program as a tool for prohibiting compatible multiple-use activities of marine resources over vast ocean areas.

Multiple use is a stated purpose and goal of the marine sanctuaries program and should be furthered whenever possible. In that regard, we believe that responsible and environmentally sensitive development of oil and natural gas is compatible with the objectives of the sanctuary program.

We recognize, however, that in some cases, it may be reasonably determined that oil and gas activities, as well as many other activities, should be restricted or even prohibited within a sanctuary as they may be incompatible with the protection of sanctuary resources.

Nonetheless, we strongly believe that the environmental record of the offshore oil and gas development industry demonstrates that such activity does not necessarily pose an unacceptable risk.

Any determination to restrict or prohibit such uses should be made on a case-by-case basis, using science, not unsubstantiated fear as the basis for that decision.

Our industry believes that all the proposed national marine sanctuary sites should be scientifically defensible, based upon a thorough examination of the program criteria. The same standard should apply to the regulatory regime developed for a sanctuary site.

Any decision to restrict or prohibit oil and natural gas activities or any other activities within the boundaries of a marine sanctuary must be made after a full analysis of the risks, potential mitigation, and the socioeconomic impacts of such a prohibition.

Members of the National Ocean Industries Association and the American Petroleum Institute support the Marine Sanctuary Program, and desire to see it implemented in a way that is true to the program's stated purpose and goals. We will continue to work with NOAA and the Congress to ensure protection of our sensitive marine environment in the year ahead with regard to reauthorization.

With regard to Mr. Studds' proposal for a foundation, I have not seen the statutory language, but I have seen his introductory remarks. I also am familiar with the Fish and Wildlife Foundation, and certainly in general would support the creation of such a foundation.

Private sector money going to research, and protection of the marine resources would be a worthwhile goal.

Thank you for the opportunity to testify before you today.

[The prepared statement of Mr. DuBose can be found at the end of the hearing.]

Mr. HERTEL. Thank you.

Mr. Weddig.

#### STATEMENT OF LEE WEDDIG

Mr. WEDDIG. Thank you, Mr. Chairman. It is rather surprising that I am here today to support this bill. We have been apathetic towards the Marine Sanctuary Program through the years, and, in fact, I recall some time in the past objecting to it.

But in retrospect, and with the experience of the past 20 years in the initiation and the establishment of the program, many of the earlier concerns that we had have proven to be groundless, and we do support reauthorization and will work with both this committee and with NOAA to further the program.

Saying that, however, I still have a genuine concern that this not take the place of the other programs that are larger and intended to maintain the sanctity, so to speak, of the environmental soundness of our offshore and our coastal activities, speaking particularly of the Magnuson Act for fisheries management, the Coastal Zone Act, the Estuarine Act and the Clean Water Act all of which have a concern for the environment. And I think that we should not be superimposing another program on top of these which are the mainstays of our environmental policy in a willy-nilly manner.

And so we would be opposing a proliferation of sanctuaries for the sake of sanctuaries. We think the Magnuson Act, for example, has to be the main mechanism we have to manage our fishery resources. The coastal zone mechanism is there to manage our coastlines and so on.

But this very proliferation, so to speak, or the multiplicity of these programs is perhaps the very reason why the marine sanctuary effort is necessary, in that in each of these other activities there is bound to be compromise and give and take.

And it seems that perhaps in the designated areas that are relatively small in terms of the total coast, there is a place and a need for approaching it from a different standpoint, and that is that this should be maintained for its own sake and that the exceptions be given to it rather than starting from use and then moving to protection.

So with that in mind, we do endorse the continuation of the program and do support it.

One final brief comment here: We understand that there is still some concern over the working relationship between National Marine Fisheries Service and the National Ocean Service in terms of how the procedures are to operate, specifically with bringing in

the council system on the fisheries management side. We urge that this be looked at during the course of the reauthorization to make sure that it is a smooth working relationship.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Weddig can be found at the end of the hearing.]

Mr. HERTEL. Thank you.

We did find with the fishermen in the Keys, it was a great experience. They realized, as Mr. Fascell said, we just weren't talking about aesthetics, but, in fact, the entire ecological system, that actually not only now but in the future would help them.

Mr. WEDDIG. Mr. Chairman, if I might, I think in the past we might have looked on this as an irritant, one more obstacle to continuing and operating commercial fisheries. But as it has been proven out, it is a compatible system and, therefore, we would endorse maintaining it and reauthorizing it.

Mr. HERTEL. I should say something else about the commercial fishermen. They have been some of the greatest protectors of the Florida Keys Sanctuary.

Mr. Potter is our last witness today.

#### STATEMENT OF FRANK POTTER

Mr. POTTER. It is customary, Mr. Chairman, for witnesses to say how pleased they are to appear before various committees and subcommittees of the Congress. I think I can say in all honesty that it is probably more pleasant for me than it is for most. It is good to be back home.

This committee may conceivably have the best focus of any congressional committee on either side of the Hill, on the kinds of issues that we are talking about here. This committee produced the National Environmental Policy Act, the Marine Mammal Protection Act, the Endangered Species Act, and, of course, the Marine Protection, Research and Sanctuaries Act.

Because of your familiarity with the subject, this committee is very well qualified to understand and to sympathize with the importance and the fragility of this resource and the urgency with which the problem must be addressed.

A year ago I got so carried away with my introduction that I forgot to say that I have provided a statement to the committee, and I would ask that it be included in the record.

Mr. HERTEL. Without objection.

Mr. POTTER. Together with a copy of the report that we produced, and also a copy of a report produced by Carlton Ray and Geraldine McCormack Ray called "A Future for Marine Sanctuaries."

Mr. HERTEL. Yes.

Mr. POTTER. I will supply that to the clerk as well.

Our review team was created just about a year ago. We met in November 1990. We met again in January, and in February we produced our report.

On this review team there were representatives of virtually every segment of the community that was involved in sanctuary. The interesting thing about this report was that in the space of a

very short period of time, we were able to produce a report that, I think, was a very good report and was unanimously approved, and we never, ever had to deal with the problem of the lowest common denominator.

There was never an effort to tone it down to keep people on-board. The degree of unanimity on this report was surprising, and it was gratifying, and to me it indicated that we had hold of the right end of the stick.

I know this is a dangerous assumption, but I will assume that you have all had a chance to look at or, at least, to review the recommendations. We took a look at the entire program.

We had support—nervous support from NOAA. There were certainly people within NOAA who felt that in creating this independent review team they were creating either a loose cannon or a self-inflicted wound, or both, and so there was a certain amount of anxiety as the time for our report to be due approached.

We produced the report. NOAA had an internal review team within the agency that looked at it, and the review team accepted the report as well.

There was only one single disagreement within that review team about our report, and that was the question of whether or not it was wiser to go ahead and pick sanctuaries and put them on paper even if there were not the resources to support them. Our conclusion within the review team was that if we were going to create sanctuaries, we bloody well ought to have the will and the resources to make them more than paper sanctuaries.

The sanctuary program, as you know, started slow, and it started small, and it has never quite achieved "escape velocity," never quite got up to the point where it could stand on its own feet. Earlier witnesses have talked about the progress of the funding for the program—it has been slow, and it has been glacial.

We are now reaching the point with nine sanctuaries in place, or almost in place, and several others coming onboard, that it is going to be necessary for the Congress to give to NOAA the resources, whether or not NOAA is able to extract from the Office of Management and Budget the willingness to ask for those resources. Congress is going to have to give those resources to the program or resign itself to the fact that the program is only a paper program.

You cannot manage sanctuaries the size of the Florida Keys on a penny budget. It simply cannot be done. And you are kidding yourselves, and you are kidding the public, if you are trying to persuade them that something more is happening than is actually the case.

The entire budget of the sanctuaries program is less than one percent of the budget of the national parks system. If you want to see more sanctuaries on paper with no education program, with no scientific research program, with no enforcement capability, then go ahead and let NOAA create them, but don't ever kid yourselves that anything is going on, because it is not.

NOAA is supportive of the program within the lower reaches of the agency where it is taking place. People in the program are competent and dedicated, people any of us would be proud to be associated with. As you go up the pyramid through the Department of Commerce, familiarity with the program and support for the

program tends to dwindle geometrically, and that is a problem that I don't know quite how to deal with.

An earlier witness expressed some discomfort with the idea of the Congress creating sanctuaries. Well, I have got to tell you that if the creation of the Florida Keys National Marine Sanctuary had been left to NOAA, it never would have happened.

There comes a point at which some vision and some boldness are essential, if you are going to make this program work. And I think that the Congress did the right thing with the Florida Keys. The people in Florida agree, and I think you are to be commended.

What we need now, what the program needs now is continued support and the ability to develop a constituency for the program which has never yet quite come into existence.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Potter can be found at the end of the hearing.]

Mr. HERTEL. Thank you, Mr. Potter.

Chairman Studds will be the first to question.

Mr. STUDDS. Thank you very much, Mr. Chairman. I appreciate your kindness, given all of our obligations.

Ms. COXE, if I may ask you a couple questions specifically about the Stellwagen Bank process.

As you know, it has generated enormous support in New England. It is one of the most popular things, perhaps the only popular thing any agency of Government is engaged in at the moment.

First, can you tell us when you expect to submit your final package to the committee for its review?

Ms. COXE. We are aiming for spring.

Mr. STUDDS. Next spring?

Ms. COXE. Yes. It may be even sooner.

There is great competition amongst the staff members to get Stellwagen out before Monterey, and the Monterey people want to get their thing out before Stellwagen.

Mr. STUDDS. We, of course, have no opinion on that subject. I am glad to hear that.

A question that has been alluded to by several of the panel members, and that is money, the draft EIS for Stellwagen estimated, as I understand it, that it would take some \$.5 million per year to fund the sanctuaries, assuming no satellite offices, and yet we hear today the prediction of about \$100,000 will be available in the 1992 budget.

First, do you think that prediction is accurate, and if so, is there any chance we can make do with only 20 percent of what you said was needed?

Ms. COXE. I think the issue of money is an issue for all of us. There are a lot of tough choices not just for Congress but for the Administration as well, and yet one of the things that I want to try to get across today is that even with a tight budget, the amount of work that NOAA has been able to generate in a very short period of time is phenomenal.

If you look at the chart that someone on your staff, I guess, put together, just since 1990 alone, we are dealing with nine sanctuaries that haven't been dealt with at any time in the past, so somehow we will struggle on, and we will pull through.



I think we are doing a great job. We are learning a lot. We are plowing through new ground.

Mr. STUDDS. I respect that, I agree with that, but that isn't really my question.

You are incurring an 80 percent cut here, as I understand it, based on what you said you needed. What gives under those circumstances?

If you only have one fifth of what you thought you should have, does that mean no boats, no access, no education, no public outreach?

Ms. COXE. I think the Potter report refers to the increase in funding. What we see in reality is a dramatic increase in the number of staff people working on the program, not just in headquarters, but out in the field.

I think when the Act was reauthorized in 1988, there were 15 people in headquarters, there are now close to 40. At that time, there were very few people operationally in the field. There are now close to 60.

Mr. STUDDS. Oh, I grant you that. I will acknowledge that Ronald Reagan is no longer President, but that is faint praise.

I am anxious, I guess it is obvious what I am anxious about. Are you, under the circumstances—what about the next budget cycle, can you walk us through what you have asked for, what NOAA has asked for, what the Department has asked for and what we are going to get?

Ms. COXE. The budget, as I understand it, is somewhere out there being discussed, and until it gets back to us, I don't know what more to say to you.

Mr. STUDDS. It has gone from you to NOAA to the Department to out there?

Ms. COXE. Yes.

Mr. STUDDS. What number did it start with?

Ms. COXE. All I can say regarding that is that all of the things that we have heard from the public and from you in Congress, and in the world in general, were considered in creating the budget. I can't talk much more than that except to say that I think the sanctuaries program, some say it is not viewed as a high priority. I don't think that is the view in NOAA at all. And I think if you look at the kind of work that we are doing right now, the monumental work that we are doing right now, I think we are doing pretty well.

I guess my point is that what I think is the real issue and how to judge the program is are we getting the job done, and when we are working on seven programs and we are doing it within a very tight timeframe and we are really not very far off in terms of any of those deadlines—

Mr. STUDDS. I accept that, but the fact of the matter is, you said you needed five times as much as you are going to have. I assume you didn't change your mind.

Ms. COXE. The Potter report said that.

Mr. STUDDS. Right. And that was accepted by your Department, was it not?

Ms. COXE. Well, we will see what happens in the budget process in the next months.

Mr. STUDDS. Let me just say that in the budget process it is common practice for us to receive the figures that I just requested.

In fact, Mr. Chairman, I would like to make a formal request that that series of numbers from office, to agency, to department, to OMB be provided to the subcommittee so we can see how well you have—I should say we have fared in this process.

I know it is an unpleasant one, but it is not an unusual request that I just made. We get provided with those figures all the time, and I would like to have it in this case.

I assume you don't carry it in your head. We would like to make the formal request on behalf of the committee.

May I ask you a question about the sanctuary boundary and the Massachusetts Bay Disposal Site?

I know you have been discussing with EPA what role the NOAA sanctuary manager ought to play in relation to that site. The issue is also directly related to the boundary question, obviously, and the need to incorporate the dump site within the boundaries of the sanctuary.

Can you tell us what you proposed to EPA, whether or not they have agreed to it, and if not, where are we at? What is the problem?

Ms. COXE. We are still working with EPA. We are still working on the boundary, and we are still responding to all the comments that have come in as they relate to the boundary, and all of that will be answered in the final environmental impact statement.

Mr. STUDDS. So there is not agreement, at this point, between the two agencies with respect to where that site belongs?

Ms. COXE. Well, actually we are dealing not only with EPA but also with MMS on the sand and gravel issue, and there are still things that have to be worked out.

Mr. STUDDS. I am sorry to hear that. I will have some more questions about that.

Finally, let me ask you a more general question.

What is your position, or do you have one at this point, on the ability of the sanctuary program to regulate or to address in any way activities that occur outside the sanctuary boundaries but that affect important resources within the sanctuary itself?

Ms. COXE. I think we would love to have this debated in the reauthorization. We are still working on our thoughts regarding the reauthorization, but we would like very much to have some clarification from you as to what kind of role we should play in terms of what is outside our boundaries and what may impact our resources.

Mr. STUDDS. Do I understand when you say that—may I read into what you just said that you would find it helpful if we provided you with some kind of additional legal authority under title III?

Ms. COXE. We would certainly love to have your thoughts.

Mr. STUDDS. Would you like my thoughts or would you like the authority?

Ms. COXE. Yes.

Mr. STUDDS. Oh. Have you thought about a CZM-type consistency approach, where the sanctuary manager had the right to review activities that were found to directly affect the resources of the sanctuary?

Ms. COXE. Not until about five minutes before you asked the question. I think we have to go back and look at that, but it is really an important issue for us, and I hope that that gets discussed a lot during the reauthorization and some real clarification comes forward.

Mr. STUDDS. I appreciate that. I think that is an affirmative response, I think. We are going to interpret it as that.

Thank you very much.

Ms. COXE. Thank you, Mr. Chairman.

Mr. HERTEL. Ms. Cox, let me follow-up and ask about the Monterey Bay Sanctuary situation. The deadline, as you know, was December 31, 1989. I understand NOAA's role in the designation process but is the problem having to wait for the other Departments involved? Is this what is taking so very, very long?

Is it that we have too many people involved here for something that is straightforward?

Ms. COXE. We look at the sanctuary program slightly differently. We see the sanctuary program as a program that is mandated by Congress that is to rely upon two things—one, science, good science, and secondly, public involvement and participation.

Unfortunately, science never comes forward as easily as everyone would like it to.

Secondly, you know, I think the sanctuary process, and I don't want to sound hokey about it, but it truly is great democracy. You look at the Monterey Bay Sanctuary proposal, and when you get, like we have nearly 6,000 comments from people——

Mr. HERTEL. What do the vast majority say of the 6,000?

Ms. COXE. In that case, most of them have called upon NOAA to consider the largest boundary.

Mr. HERTEL. And that is democracy, so let's do it.

Ms. COXE. And we expect to have the final environmental impact statement to you in very short order. We are in the final stages of wrapping that thing up.

Mr. HERTEL. And some of the agencies want the smaller boundaries so they can have oil and gas drilling outside of the boundary and not have to worry about fighting it within the boundary?

Ms. COXE. NOAA is looking at science, NOAA is talking to other agencies, NOAA is listening to the public, and NOAA makes its decisions with all of those things in mind.

Mr. HERTEL. You know, national wildlife refuges and national parks are congressionally designated. Why shouldn't Congress designate the sanctuaries and then have NOAA administer the sanctuaries?

Ms. COXE. You know, I think that the process as it exists now is really a good one. Again, it involves people who are out there in the field, who in some cases, love their resources more than any of us do here in Washington, and it puts to work what I think is essential, and that is identifying scientifically those areas along the East Coast, along the West, in the Great Lakes, in the Gulf, that are particularly significant and important, be it historically, culturally, or from a science perspective, and from our view, that is a great process.

It hasn't worked badly.

Mr. HERTEL. Well, I guess—I know how hard people at NOAA work. I have been fighting for increased funding. I have seen what they have had to make do with as far as ships that were unsafe. I have seen the long hours they put in. I have seen the poor shape of some of the laboratories and all the rest. I know how hard they work.

But what you are hearing here today once again from Mr. Fancell, Mr. Panetta, Mr. Studds, and myself is that we think it is taking far too long, so we can't accept that it is really working well.

Even if Congress designated it, or we changed it or something, I would still want those people in the field for their judgment and advice, but the decision process seems to be what is taking so long.

Ms. COXE. I think the decision process—again, I go back to what I said before, when you incorporate scientific thinking, when you incorporate the public and involvement of the public, and when you incorporate other agencies, it is going to take a little bit of time.

One of the things that we have to remember is we are creating sanctuaries that are going to be around for centuries to come. And I would submit to you that if we are two, three, five or eight months behind in designating a resource that is going to be with us forever, and ever and ever, so be it. I don't think that is the end of the world.

I think, again, please remember that right now we are working very, very rapidly and aggressively on the designation of seven different sites. I think Gary mentioned the numbers to you. Tens of thousands of nautical miles being set aside by NOAA.

If we are going to do it well, I think, and also hold the spirit of the law in place, it means that we really have to listen to a lot of people, and that takes some time.

Mr. HERTEL. You are three years behind on the Monterey Bay deadline, and the fact is that we know something here about democracy, and we know it is not easy, and we know that it can be very difficult, and we know it can be time consuming on all different levels. But you can't make everybody happy.

Now, in the Keys situation, we had hundreds of people come here and tell us why we shouldn't do it. We still thought it was right, and now the fisheries industry is honest enough to come forward and say that their objections are just the opposite, that they think it is working really very well. But if we would have listened to all the people who came in here, we still wouldn't be protecting the third largest reef in the world.

I guess that is what we are trying to say. We understand it is difficult. We understand some people don't like it, and they are not going to like it next year, either.

Do you need more resources?

Ms. COXE. I think the 1993 budget will address that, and soon, I am told, we will all know what the 1993 budget is.

Mr. HERTEL. OK.

Thank you.

Mr. Taylor.

Mr. TAYLOR. Ms. Coxé, I apologize for missing most of your testimony, and I am in no way belittling your efforts when I ask you

this question, but as a steward of the public trust I have to know where the money goes, so please forgive me.

What exactly do you do with the marine sanctuary? I mean, are there enforcement costs of keeping vessels off of it?

Do you have to put buoys out there to keep trawlers from going across it? I could understand a national forest, and I am from a coastal State, but tell me what exactly—what are the costs involved in maintaining a sanctuary other than putting the—designating it on a chart.

Ms. COXE. There are lots of things that we do with the money, and they range from public education, and that isn't just going into classrooms. In some cases it is, as we are off the coast of Georgia now, just about getting ready to put the spade into the ground to create an education center for that sanctuary.

It involves, as you mentioned before, putting buoys out so that people will not put their anchors down, causing further damage to coral reefs. It involves doing good, pure research and science. It involves enforcement. So it is a variety of ways that the funds that are granted to us are put to work.

Mr. TAYLOR. When you say enforcement, though, I guess in the instance of a coral reef or the *Monitor*, how do you actually keep someone from dragging a trawler across it?

Ms. COXE. In some of our sanctuaries, we have people on site. As I mentioned before to Congressman Hertel, we have about 60 people out in the field at the nine sanctuaries that have thus far been designated, and those people are either doing education or doing enforcement and monitoring work for us.

Mr. TAYLOR. What is your intergovernmental relationship with the Coast Guard?

Can some of this, such as the buoys, be provided by the Coast Guard? Can some of this—can some of the equipment be provided by the Coast Guard, such as an old light ship to indicate a potentially hazardous reef?

Ms. COXE. Actually we are right now talking to the Coast Guard about sharing some responsibilities and making our dollar go just a little bit further. They are already out on the water.

If there are ways in which they can do some work for us, we are talking about that now.

Mr. TAYLOR. What about in the way of surplus equipment; have they been making that available to you?

Ms. COXE. Much of the equipment—some of the equipment that we have has been surplus from other parts of Government and re-vamped for our sanctuary purpose.

Mr. TAYLOR. Who supplies you buoys?

Ms. COXE. Who supplies the buoys?

Commander HARRIGAN. There is a variety of buoys, some of them are—those that we design, that the program designs, we are the only ones who do that, and they are particularly for that use, the Coast Guard doesn't have the expertise or the equipment for those.

We do count on the Coast Guard for aids to navigation to help protect the sanctuaries, and we work very closely with them on that. We also use their aircraft.

They allow us to go out with them, and we use some of them for surveillance and observations at sanctuaries. So there are areas where we interact with them very strongly.

Mr. TAYLOR. I am curious in the case of the two instances where there were judgments against vessels for running into the reef, who actually did the law enforcement follow-up on that; NOAA, the Coast Guard, who?

Ms. COXE. We actually have had five cases in the Florida Keys where groundings have occurred. One of them is still in litigation, so we can't talk about it, but Margo Jackson, our attorney, might want to say a little bit more about that.

Ms. JACKSON. In the initial response to these groundings, it is really a matter of who can get there first. It may be the State employees, it may be NOAA or maybe the Coast Guard.

After that stage, we, NOAA, generally takes over in terms of the pursuit of the cases and establishing the damages, and so forth. We have recovered, as Ms. Coxie mentioned, money in a number of these cases, and are establishing ways to work better with States like Florida for enforcement purposes.

We have enforcement MOU's and are setting out standards for how we proceed.

Mr. TAYLOR [presiding]. One last question.

One thing that I have noticed on some similar interests off the Mississippi Coast is that I don't feel like we as a Nation do make the most of the resources we have available to us. I do know, for example, that the Coast Guard has a great reluctance to mark off-shore fishing reefs, saying that, well, their hands are full, they are just doing aids to navigation, their budgets are limited. But yet I know for a fact that they are surplusng buoys from time to time, that the monster buoys that used to be used for the data buoy center are being sold for scrap.

I was just curious if you have experienced any problems at seeing something that is, obviously, available and underutilized, or unutilized, and found that through one regulation, or lack of regulation or another, that you are not having access to these things.

Ms. COXE. My understanding from Commander Harrigan is that we are fairly good at scavenging things, and he has got his fingertips, through his role as the NOAA Corps officer, on a whole lot of activity that is happening within the transportation and equipment world. And we take advantage of every opportunity that is available to us as a way of extending that dollar even further.

Mr. TAYLOR. So you have had no red tape?

Ms. COXE. So if you have—when you hear of excess things, let us know, because we can put it to work.

Mr. TAYLOR. Well, there is a beautiful 50-foot discus buoy sitting in Perkinston, Mississippi, about to be sold to make razor blades or something.

Mr. Gilchrest.

Ms. COXE. Can you get it donated to us, please?

Mr. TAYLOR. Do you have any questions?

Mr. GILCHREST. Thank you, Mr. Chairman.

Ms. Coxie, I guess you are in the hot seat today. They told us before we came in here that anybody who wears blue, we should ask all the questions.

You talk about science being a difficult thing, I suppose, to relay that information to the public to help them understand why an area to be designated as a sanctuary is a good idea. I am not sure—

Ms. COXE. What I am really referring to is if we are going to manage the resource well, be it in Florida or California, the more we know about the resources that are there, the better job we can do.

For example, really based on the Potter report which directed NOAA to consider expanding its work on the Florida Keys, we are right now doing a photogrammetric survey of the reef system off of Florida.

The reason we think that is important is because it will really give us a first-time look at what is really out there when it comes to reefs. We blithely say that this is the third largest reef system in the world, but where are the live reefs and where are the dead reefs, and one of the ways that we think we can get a handle on that is through this survey.

If we want to guarantee that the reef is going to be around for hundreds of years to come, we have to understand that reef well. That is why the science is important, and in trying to pull together all of the data that might be involved in a sanctuary, all of the resources that are involved, what are the fish, what kind of trouble are they in, what are the reefs, where are the seaweed, all of those questions that are asked. It doesn't get done overnight.

Science, in general, what I meant to say was that science, in general, takes time.

Mr. GILCHREST. That reef now is not designated as a sanctuary?

Ms. COXE. The Florida Keys is a sanctuary; yes?

Mr. GILCHREST. Is a sanctuary.

Based on your scientific evidence, it is a good area to be considered a sanctuary?

Ms. COXE. That reef was designated by Congress.

Now we are, last year—now NOAA is going back and creating a management plan for the Florida Keys reef—Florida Keys sanctuary which we—the purpose of which is to really lay out all the potential problems that could occur and put into place in a preventative way, the kinds of regulations and management practices needed so that the coral will continue to be there.

Mr. GILCHREST. So the science is catching up to a congressional decision?

Ms. COXE. In that particular case. Part of that sanctuary, actually the Florida Keys Sanctuary is a combination of several, two of which were designated, I don't know.

When did Looe Key go, Bill?

I am not good at the dates—1981.

Mr. GILCHREST. I would always agree that the science should come first, to base our policy on fact rather than political expediency for a particular congressional district.

Mr. DuBose, I missed some of your testimony, but I was trying to read through it quickly. I guess you also feel that any sanctuary should be based on a variety of reasons, socioeconomic, science, and the availability of resources, and so on.

Do you think the designation of this reef in Florida was a good idea?

Mr. DuBOSE. I don't have a problem with the designation of the Florida Key Sanctuary. I do have a problem with total prohibition of oil and gas activities in the area.

I don't agree with the assumption that offshore oil and gas activities are necessarily harmful. There certainly is a risk involved with any activity, commercial fishing activity, trawls coming across bottoms, human activities, putting mooring buoys out, so more divers and more fishermen can come is going to have impacts on a reef.

The sanctuary program was developed as a multiple-use program. All sanctuaries don't necessarily need to have offshore oil and gas activities in or near them, oil and gas resources aren't near all sanctuary sites or proposed sites.

I don't have a problem with the site designation itself. Sanctuaries are definitely worthy of protection, it is just what protection we are talking about.

Mr. GILCHREST. I apologize for not knowing this, but in an area designated as a sanctuary now, those areas throughout the United States that are sanctuaries, can oil or gas be drilled in those sanctuaries at the present time?

Mr. DuBOSE. They can. Each sanctuary is on an individual basis.

All activities are—should be examined as to whether or not they would be prohibited or allowed. Certain sanctuaries, including this one that was developed or created by Congress, did have it prohibited.

Flower Garden Banks, which Trudy mentioned, which is about to come on line in January, I believe, is a sanctuary that NOAA and the industry have been working with for many years. It was developed because of the multiple-use concept.

There is a lot of offshore oil and gas activities right around the two Flower Garden Banks. We think those uses are compatible with the sanctuaries.

Trudy was on a Mobil platform not long ago and saw our operations offshore and saw that there are no effects on the coral reefs.

Our industry, like Mobil, has sponsored researchers on their platforms to allow them to do long-term studies on the effects of our industry and other industries.

Our people have warned ships away from the coral reefs. So we are part of that citizen group, too, that supports marine sanctuaries, but we do it from a perspective that multiple uses can exist.

Mr. GILCHREST. Any law should be flexible.

Mr. Weddig, could you tell us what fear you had about this sanctuary program in the past and what turned you around on it?

Why do you think it is a good idea now?

Mr. WEDDIG. When it was initiated, and with the designation of some of the first potential sites, the concern was that these were very good fishing areas and that fishing would be prohibited. As these have developed, to my knowledge, the activities are under control, of course, but there has been a compatibility achieved through the give and take of the hearing process, the EIS, and so on. So I think the earlier concerns that we were just going to be prohibited from our normal, in many cases, years-long, century-long activities, that we would be prohibited from them, has not oc-



curred, and so that has moved us away from our concern to a certain extent.

One of the things that has struck me in Mr. Potter's report that we have not thought about before that is worthy of note here is that the educational potential of the marine sanctuaries is very promising. One of the concerns of the commercial industry is that the citizens do not, and even ourselves, we do not really recognize the potential destruction of habitat from all sorts of sources, whether it be sewage disposal, toxic waste, et cetera, et cetera. It goes on and on.

I think very few people really recognize the devastation that can occur to the living marine resources from habitat destruction. And, yet, very few people really understand what makes up habitat destruction, the little things that take place. We have been trying to develop educational materials as to why habitat protection is important and what all goes into it. And this program has the potential, I think, of trying to dramatize and to show just what makes up habitat destruction, how it can be prevented in the isolated areas of the sanctuaries, and, perhaps, that can then move out to influence human activities throughout the coastline.

Mr. GILCHREST. You raise a good point.

I would like to ask this question for any of you that would want to answer: When we are talking about the sanctuaries, I suppose there is nothing on the planet that is isolated from something else, and if we look at a sanctuary where we want to preserve the fisheries in that particular area, in developing a criteria for determining what area should be a sanctuary, is there coordination with the coastal areas to determine what that coastline is made up of, wetlands, non-tidal wetlands or the impact of the coastline on the area designated as a sanctuary is inevitable. Is there any connection with any other agencies to look at that as part of the criteria for the designation?

Ms. COXE. NOAA—again, this goes, I think, back to the science and to the interaction that we have with a variety of players or partners, whatever, and the way that we create the direction that we think we should be going in is by working from a site evaluation list, which I don't think I mentioned before, but one of the priorities for us this year is to initiate or really move forward the reinitiation of the site evaluation list, which was last worked on, I guess, in 1983. And we have two people now who are working full-time to review that list, to go to many parts of the country and talk to agency officials at the State and local level, to talk to environmentalists, industry people, and others about what may or may not be special in their back yards. So there is—and one of the things that we hope will come out of this site evaluation list is a way to really prioritize the resources that are most significant along the shoreline.

Mr. GILCHREST. Mr. Magnuson.

Mr. MAGNUSON. Having worked for States, I took a close look at the statute several months ago when I gave a presentation to the Western and Legislative Conference. They were interested in those marine sanctuaries that are adjacent to State ocean waters, generally out to three miles into the ocean, and the interrelationship between the Federal marine sanctuary and State ocean waters.

Under the law and through the designation process, the governor can, based on his or her request, withdraw the participation of State ocean waters from a proposed sanctuary if, in fact, they do not agree with it.

That doesn't address the question that Mr. Studds and others have raised in this hearing: What do you do with uses outside the sanctuary and their relationship to the sanctuary?

I think we all agree that that should be addressed during the re-authorization process. But there is, with respect to your question on the coastline, a lot of good work done by Ms. Coxe's office and others about involving the States, making a joint decision.

I can only think of one exception in which the States have not gone along with Federal marine sanctuaries which are adjacent to State ocean waters.

Mr. GILCHREST. I guess you can have a pretty clean sanctuary, but if you have a lot of soil erosion next to it and pollutants filtering into it, it is not going to be much of a sanctuary.

Mr. MAGNUSON. Well, the comparisons have been made a lot by Mr. Studds and others to the national park system and the marine sanctuaries program. A number of parks have problems with unrelated development just outside the park. I think we have all seen that on occasion.

We don't want the same happening to marine sanctuaries.

Mr. GILCHREST. Just one last quick question.

Is the Chesapeake Bay region on any of your lists, by any chance?

Ms. COXE. Norfolk Canyon is, but not the Chesapeake Bay itself.

Mr. GILCHREST. Would the Chesapeake Bay meet the criteria in any way, shape, or form?

Mr. COXE. Good question.

Mr. GILCHREST. That is okay.

Ms. COXE. We will review that as we go through the site evaluation list process.

Mr. GILCHREST. We don't want any congressional meddling here with the science.

Thank you.

Thank you, Mr. Chairman.

Mr. TAYLOR. Thank you, Mr. Gilchrest.

Mr. Anderson.

Mr. ANDERSON. No questions.

Mr. TAYLOR. Mr. Hughes.

Mr. HUGHES. Thank you, Mr. Chairman.

I, too, want to welcome the panel. I just have a couple of questions.

When an area is already protected by a State through various State management plans, whether it is wetlands, whether it is other types of environmental protection, what would be the role of designation as a marine sanctuary?

I know that coordination is one of the goals, to coordinate the protection of the resource, coordination of the research that might be conducted, but since there are limited funds, I would like to know just how much of your attention is focused on whether the resource is protected and whether it needs additional protection.

Anybody? Ms. Coxe?

Ms. COXE. I think that the sanctuaries program sometimes, we are dealing with a set of reefs 120 miles out to sea in the Gulf, that is the Flower Garden Banks sanctuary, which is to be designated very soon, the final environmental impact statement is done, and it is now winding its way up to Dr. Knauss' office for signature.

In that particular case we believed that it was very important to protect those reefs, even though they were very far out at sea, because they were very special. Scientists say that if you were to even move them by a few miles, they wouldn't be able to survive. And the view is that for the very special places along our coastline that need protection, now is the time to get ahead of any kind of damage that might occur in the future.

The sanctuaries program, I think, is a visionary program. It tries to identify—remember that people are moving to the coast faster and faster, and the most heavily-populated part of our country is the shoreline, and if you can try to imagine 25 or 50 years from now where people will recreate and where people will spend their time, I don't think it is unusual to think that it gets further and further out.

Mr. HUGHES. I guess I didn't make my question clear.

What I am asking is: Where a State, for instance, has already endeavored to protect a resource, and a request is made for designation as a marine sanctuary, do you consider whether or not the resource is already protected and whether or not there is ongoing research there? Is there a question as to how much you can add to it?

Ms. COXE. Yes, and there is overlap. For example, in the Florida Keys, our sanctuary encompasses several preserves and reserves and other Federally-designated and State-designated park lands.

Mr. HUGHES. All right.

Now my follow-up question is: What does designation, then, add if the resource is already protected and research is ongoing?

Ms. COXE. I think it adds a coordination, and it adds not another layer of bureaucracy, but another layer of interest.

Mr. HUGHES. What does interest mean?

Ms. COXE. Well, by designating that, for example—

Mr. HUGHES. You mean Federal money?

Ms. COXE. In the case of the Florida Keys, in the case of any of the designations that have gone forward, there is money for monitoring that sanctuary, there is money for continued science, there is money for education, there is money for building buildings so that better education can be done, so it does bring some money to it.

Mr. HUGHES. So it brings some Federal money for, perhaps, additional research, if that is warranted. Or, if there are several State programs or local programs that manage a particular resource, because the resource cuts across geographic boundaries, it adds coordination. One of the roles of the program would be coordination of that management effort or a comprehensive management plan and other benefits?

Ms. COXE. Yes.

Mr. HUGHES. In other words, what you are saying is that just by virtue of the fact that an area is protected as an environmental

treasure by State or other local entities, does not necessarily foreclose the possibility of a designation.

Mr. POTTER. Could I add something to that?

Mr. HUGHES. Yes.

Mr. Potter.

Mr. POTTER. Yes. Trudy's point, I think—hits the thumb right on the nail.

In the case of Florida, for example, there are a number of Florida programs that protect Florida waters. The problem is that the resource is not only in Florida waters, it crosses the borderline, and it makes no sense to say you can do something up to this line and then after that line you can't do anything at all.

There are, in fact, interstitial regulatory requirements that can be met, say, where the Federal Government would be able to regulate something that the State might not easily do, or the State might, for one reason or another, not have actually taken the necessary steps, so that the two State and Federal agencies working in cooperation can do the job—and in Florida that is working extremely well.

You have the chance then together to deal with problems that either one of you might not be able to deal with adequately by yourself.

Mr. HUGHES. I understand that when a resource would basically go beyond a State's jurisdiction, beyond the three-mile limit, or off the Louisiana Coast, whatever that is, the need to have a more comprehensive program, but I am more particularly referring to when a resource is totally within a State's geographic boundaries, and there are several programs that already protect that resource. The question was what designation would add to that, and I think you have answered the question.

You believe it adds some research money if that is warranted, and coordination, but does not trigger any additional Federal regulations, am I understanding it correct, does not bring with it an additional regulatory maze to be superimposed upon existing regulations?

Mr. MAGNUSON. I would agree with you, but not in all cases.

Mr. HUGHES. Now you have me worried when you say not in all cases.

Mr. MAGNUSON. But if you are offering the Federal umbrella and to holistically look at this resource, to involve the State and Federal Government together, this would provide the best possible protection for the resource.

Mr. HUGHES. Well, if a resource is already protected, basically, what additional protection would the program add to a resource?

Mr. MAGNUSON. Again, in your case, if it was totally within State water?

Mr. HUGHES. Yes, within State boundaries.

Mr. MAGNUSON. OK, say that State is not a participant in a national coastal management program, does not have consistency authority within its State ocean waters.

Mr. HUGHES. But let's assume the State does have consistency.

Mr. MAGNUSON. In this case—

Mr. HUGHES. As a comprehensive coastal zone management plan, with consistency.

Mr. MAGNUSON. It would have some authority over Federal activities within that area in their State ocean waters, but adding in additional authority as part of a national marine sanctuaries program, you would up the ante, in my opinion, as far as having better control over those Federal activities that could affect whatever protection the State could provide.

Mr. HUGHES. What is the mechanism, for instance, to review a dredging project in an area that enjoys marine sanctuary status, but the traditional uses of a river is commercial fishing in nature. Does that trigger an additional review if a request is made by the abutting jurisdictions for dredging money? Do you know?

Ms. COXE. Actually we don't—to the best of my knowledge, there isn't any dredging in any of our sanctuaries; is there?

So—

Mr. POTTER. Mr. Hughes, I wonder if the nub of the problem we have here lies in the word protection. When you say "protected," protection means a lot of things.

There are a whole range of activities, some of which may be entirely consistent, as another one of the members of the panel pointed out, with managing a sanctuary, and some of which may not.

I am not aware of any area off the coast which is totally protected, where nobody can go. People can always do *something*.

Mr. HUGHES. Are all the sanctuaries off the coast?

Mr. POTTER. Yes.

Mr. HUGHES. Are you looking at sanctuaries that are within State jurisdictional waters that are not necessarily—

Ms. COXE. Some of our sanctuaries may encompass State waters. For example, Monterey Bay will be a combination of Federal and State waters, and that is why the coordination between State and local officials is absolutely essential.

As Mr. Magnuson pointed out before, we don't want to be in a situation at the end of the line where a governor may be unhappy with what is being proposed for that sanctuary, particularly in those State waters, so the beauty of the sanctuary designation process is that it requires and really insists that all of the players work together very closely.

Another thing that I don't think I answered well before, what comes out of the sanctuary process and designation is the creation of a plan of action on how to manage the resources properly into the future, and you don't have that for every bit of water that is out there, so that if you have a particularly significant—we will go back to Florida again, the protection of those reefs.

If there isn't someone there to educate people on the fact that reefs are living bodies, it is very likely as we use water more actively in the future that there won't be reefs left for us. If we don't have people out there planning ahead, saying we have got to have some monitoring of those reefs, it is very likely that those reefs won't be around.

Mr. HUGHES. Don't misunderstand me; since I have been here in the Congress for 17 years, I have strongly supported, each and every year, the sanctuaries program. I think it is a great program.

I am aware of some potential designations, however, that I have some concerns about, and that is why I asked my questions. I think you have answered them; I think.

Thank you, Mr. Chairman.

Mr. TAYLOR. Thank you, Mr. Hughes.

One last question for the panel in general.

We have a vote. We will have to wrap this up in about six minutes or so.

But Ms. Coxe, getting back to your statement about we are planning ahead, one of my criticisms of many of our agencies, and that includes States that deal with offshore resources, is that I seem to notice more and more people in trench coats and ties, counting fewer and fewer resources, doing studies that go up on some shelf and sit there at tremendous expense to the taxpayers, and nothing is being done to enhance the resource.

I mean, even this program, it seems your goal is to mark it but not to enhance it.

I did notice in Mr. Magnuson's testimony that—oh, shoot, Mr. Magnuson I want to say it is on page 10, where you are talking about preserving some core areas for brood stock, like is being done in Australia and New Zealand. You know, if we had not had a U.S. Forest Service, all that land that was cut over, the timberland from the 1880's through the 1920's, would still be cut over to timberland.

I am just curious if anyone out there has ever considered some sort of organized Federal program to bring reefs back, take old offshore drilling rigs and make reefs out of them, put old oyster shells out there for clutch material.

I don't see much being done in the way of enhancing our environment. I know the Japanese are very active in it, and I know some other countries also.

I want to open it up to the panel if anyone has any thoughts on that.

Mr. POTTER. That is, in fact, one of the topics that is being looked at in connection with the Florida Keys, the possibility of creating a few artificial reefs, not coral reefs, but places where fish can hide and divers can watch them, and that does have a lot of potential in the right case. So I think the general answer to your question is yes, there is within the agency consideration of ways to improve the quality of the reef, but it very much depends on a case-by-case analysis that what is appropriate in one place, may not be appropriate in another.

Mr. MAGNUSON. Mr. Taylor, if I may, you touch on a point that, I think, is at the root of a lot of our discussions today, and that is that the potential of this program is great, the funding needs of this program are great. Where this program can go is illustrated by Mr. Potter's report, which I hope is the foundation for the Administration's reauthorization proposal.

The \$30 million recommendation in that report is a significant first step, but it doesn't even come close to what this program could be as far as enhancement of the resources, which you have mentioned, and as far as visitation, interpretive centers, and enforcement, let alone the studies and management plans which have taken most of the money now.

It is open-ended as far as trying to match this marine program to what has been done by the National Park Service. We have gotten a good start, but we have a long way to go.

Mr. DuBOSE. I would add one thing as far as artificial reefs. Certainly, the platforms in the Gulf of Mexico are, in fact, de facto artificial reefs.

The States of Louisiana and Texas have both recognized that and started their own rigs-to-reefs programs, where obsolete oil and gas platforms are placed in specific areas for the purpose of creating artificial reefs for fisheries development. The States then have the opportunity to manage those either for fish propagation or commercial activities, recreational activities, dive activities, that type of thing.

Mr. WEDDIG. One last point. I think the way we look at this is that the sanctuary program should be the exception, not the rule, and that the basic laws that are in place which govern offshore drilling, for example, the fisheries management law, coastal zone management, the State programs is the business as usual, and they are all intended to protect the environment, and I think the sanctuary program is supposed to be something special, something over and above, that ties it all together as a demonstration, as a showcase, and particularly to protect those areas of unique significance.

We would oppose the idea of let's make everything a sanctuary; that doesn't make any sense. The other laws are there to govern our relationship with the environment.

These are special situations, and I think they have to be looked on in that fashion.

Mr. TAYLOR. If you have any additional statements, I am sure that the Chairman has already given you 30 days to submit additional records.

We do thank you for your attendance, but because of the vote we will now have to adjourn.

Thank you very much.

[Whereupon, at 4:13 p.m., the subcommittees adjourned and the following was submitted for the record:]

STATEMENT  
OF  
TRUDY COXE  
DIRECTOR, OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

SUBCOMMITTEE ON OCEANOGRAPHY, GREAT LAKES AND  
OUTER CONTINENTAL SHELF  
SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION  
AND THE ENVIRONMENT  
COMMITTEE ON MERCHANT MARINE AND FISHERIES  
HOUSE OF REPRESENTATIVES

NOVEMBER 7, 1991

Mr. Chairmen and Members of the Subcommittees:

Thank you for inviting me to testify on the National Oceanic and Atmospheric Administration's (NOAA) National Marine Sanctuary Program. Your interest and support for the program over the years have been invaluable.

I would like to update the subcommittee on the National Marine Sanctuary Program's activities and priorities before I get into the specifics of the upcoming reauthorization. National Marine Sanctuaries are important components of effective coastal resource management. NOAA currently operates nine National Marine Sanctuaries. During fiscal year 1992, NOAA plans to designate four more sanctuaries and will continue the designation process on four additional sites. A pre-designation study on a potential site in Hawaii also will be continued. Designated sanctuaries protect vital resources from degradation, provide important



natural research laboratories, and promote public education on coastal and ocean resources, in addition to providing for compatible multiple uses, including recreational opportunities.

The Administration strongly supports the National Marine Sanctuary Program's mission to protect marine resources while providing for other uses to the extent that they are compatible with sanctuary designations. The 1988 Amendments to Title III of the Marine Protection, Research, and Sanctuaries Act (MPRSA) mandated NOAA to designate four new sanctuaries, prepare prospectuses for two new sanctuaries, and conduct studies on four potential sanctuary sites, all within specific timeframes.

NOAA has had to mesh the deadlines required by the MPRSA with the requirements of the National Environmental Policy Act (NEPA) and the Administrative Procedure Act (APA). The public comment period under NEPA alone consumes over three months. Because of the importance and potential impacts of sanctuary designations, NOAA has provided the maximum opportunity for public comment in order to record and consider the divergent concerns of those who will use or are interested in the sanctuary marine environment. Thoughtful consideration of alternatives, impacts, and public comments can be a long and arduous process. However, we are committed to excellence, and believe that a more efficient

designation process can be achieved through a reduction in paperwork. This will allow more time in identifying and solving problems surrounding the sanctuaries and their resources.

We are making significant progress. Cordell Bank National Marine Sanctuary was designated in 1989. Flower Garden Banks designation, determination and findings are currently under NOAA review and a designation ceremony is anticipated by early next year. The Monterey Bay and Stellwagen Bank Final Environmental Impact Statements reviews are scheduled for completion by next spring. Olympic Coast National Marine Sanctuary public hearings are scheduled for November 1991 in both Washington State and Washington, DC. Scoping meetings for the Hawaiian Kahooolawe/Humpback Whale Study, held this August, had excellent public support. And the collection and synthesis of data for the environmental impact statement and management plan for the Florida Keys Sanctuary is progressing.

We are currently developing recommendations for the 1992 reauthorization of Title III of the Marine Protection, Research, and Sanctuaries Act. Our goal is to improve the National Marine Sanctuary Program, and to manage and protect coastal and marine areas in a more efficient manner. With assistance from the public and private sectors, we intend to

develop a legislative proposal for consideration by the Congress.

We have completed an outside objective evaluation of the program. The review team, headed by Mr. Frank Potter, produced the 1991 Report to NOAA (the Potter Report), which has been implemented as a guide to revitalizing the National Marine Sanctuary Program. These initiatives are being carried out under our new Acting Chief of the Sanctuaries and Reserve Division, Commander Bill Harrigan, from the NOAA Corps, who comes to us with a strong background in the Sanctuary Program and experience in marine and estuarine issues.

Damages to Natural Resources in Marine Sanctuaries

NOAA is extremely concerned about potential damages to natural resources in marine sanctuaries. This concern is reflected in the development of a National Marine Sanctuary Contingency Plan under the Federal guidelines of the National Contingency Plan and the Oil Pollution Act.

NOAA is working with Federal and State Trustees in the recovery of damages to natural resources. Memoranda of Agreements are being developed to determine how funds will be allocated as a result of damages. Within NOAA we are working closely with NOAA's Damage Assessment and Restoration Program and Hazardous Materials and Response Division, to establish clear working relationships and to develop long term planning and implementation goals. Our efforts to revitalize the National Marine Sanctuary Program will strengthen both internal and external relations and produce effective management plans.

Conclusion

The Administration is committed to the conservation and sound management of valuable marine resources and NOAA is proud to be a part of this effort. We are devoted to

improving the Program and producing quality designations. We have been and will continue to work with public and private concerns, as well as other Federal agencies, in the spirit of public involvement as articulated in the MPRSA. As we go through the reauthorization process, we welcome the opportunity to work with you and your staff as we look toward the future in improving and fortifying the protection of our coastal and marine resources. We appreciate your interest and support in this essential endeavor.

The Administration is reviewing the legislative proposal (H.R. 3694) that would establish a Foundation for Ocean and Coastal Conservation in the United States. As soon as that review has been completed, we anticipate providing our views to the Committee.

Mr. Chairman, this concludes my prepared statement. I will be glad to answer any questions.



**Center for Marine Conservation**

**TESTIMONY OF  
R. GARY MAGNUSON  
VICE PRESIDENT OF THE CENTER FOR MARINE CONSERVATION**

**BEFORE**

**THE SUBCOMMITTEE ON OCEANOGRAPHY,  
GREAT LAKES, AND THE CONTINENTAL SHELF**

**AND**

**THE SUBCOMMITTEE ON FISHERIES  
AND WILDLIFE CONSERVATION AND THE ENVIRONMENT**

**NOVEMBER 7, 1991**



### Introduction

The Center for Marine Conservation (CMC) appreciates this opportunity to provide testimony on the reauthorization of Title III of the Marine Protection, Research, and Sanctuaries Act (MPRSA). CMC is a national, 100,000 member non-profit organization dedicated to maintaining the health and diversity of marine life through policy oriented research, public education, citizen involvement, and responsible advocacy. For more than a decade, CMC has been an proponent of conserving this nation's most outstanding marine areas through the National Marine Sanctuary Program (NMSP). The Center has led efforts to establish Program sites and strongly supports the reauthorization of Title III of the MPRSA.

CMC takes pride in its involvement in the National Marine Sanctuary Program and has been active on many counts. For example, CMC was one of the first groups to identify and propose the designation of the Northern Puget Sound Marine Sanctuary. CMC is also a key participant in the Coral Reef Coalition, the primary support group for the Florida Keys Marine Sanctuary. In addition, CMC has cosponsored with the State of Washington public workshops held last week regarding the proposed Olympic Coast Marine Sanctuary and is presenting testimony today at public hearings on the proposed sanctuary. Moreover, CMC sponsored a conference last year on the proposed Stellwagen Marine Sanctuary and has actively supported efforts by Congress, including several

members of both Subcommittees, to approve a sufficient level of federal funding for the Program.

The Center wholeheartedly supports the objectives of the National Marine Sanctuary Program (NMSP) and the designation, development and implementation of marine sanctuaries with the strongest possible protection. The NMSP now stands at a threshold. The opportunity exists to transform this program from a good small program to a powerful tool for protecting our nation's special marine areas. The NMSP could become a showcase program, providing strong, comprehensive protection of our nation's most beautiful and valuable marine resources and conserving them for future generations.

As it approaches its twentieth anniversary, the NMSP has achieved considerable success working with meager financial resources, but has not yet fulfilled its mandate to protect and restore special marine areas, nor lived up to its enormous potential. The increasing public support and awareness of the need to protect this nation's spectacular marine areas, combined with this program's potential for providing such protection, sets the stage for the creation of a strong program capable of protecting these areas. Leadership and commitment are necessary to achieve a level of stewardship for our special marine areas comparable to that already afforded many of our terrestrial treasures.



### The 1988 Reauthorization

The 1988 Amendments and Reauthorization of the MPRSA have had the intended effect of reviving and reinvigorating the NMSP, despite the fact that many of the deadlines set in the 1988 amendments, such as the designation of Flower Garden Banks (ordered by March 31, 1989), Monterey Bay (ordered by December 31, 1989), and the Olympic Coast (ordered by June 30, 1990), have not been met. Although progress on site designations mandated in 1988 has been excruciatingly and inexcusably slow at times, the Amendments did jump-start the process and substantial, if tardy, progress has been made on each of the sites (for example, Flower Gardens will be designated by January, Outer Coast DEIS has been released and Monterey FEIS will be released soon). Especially noteworthy is the degree of public interest, involvement, and support that has surfaced for each of the sites under development. Never before has the designation of sites as sanctuaries generated this much public interest.

At the same time, the flurry of activity and support generated by the proposed sanctuary designations, (as evidenced by the large turnout at workshops and hearings in Florida, New England, Washington State, Hawaii, and California), has raised expectations and strained sanctuary resources. For Stellwagen Bank alone, sanctuary program staff had to respond to over 2,000

written comments on the Draft Environmental Impact Statement. This strain on the administration of the NMSP has been exacerbated by limited funding and conflict within the Administration over the degree of protection needed for proposed sites. In particular, limited Program funding, although substantially increased since FY90, has led to competition for scarce resources among both existing sites and those under development. With this in mind, CMC supports the trend reinforced by the 1988 reauthorization of increasing funding levels for the Program.

#### Challenges and Opportunity: NMSP Review Panel Recommendations

Earlier this year, to its credit, NOAA assembled a broad-based external review panel representing many interest to assess the status of the NMSP and make recommendations for strengthening it. The title of the report compiled by the panel, National Marine Sanctuaries: Challenge and Opportunity, accurately reflects the current status of the program. The report also contains a number of recommendations which if properly implemented could go a long way to strengthening the NMSP. We strongly support those recommendations and would like to highlight a few:

- \* the sanctuary program funding level needs to be dramatically

increased;

- \* we support elevating the program within NOAA, provided that the budget level is also elevated;
- \* we support providing adequate funds to complete the designation process, so that this is not a drain on ongoing site management, we do not, however, feel that the process is flawed in and of itself.

### Funding

Since its inception, the NMSP has been severely handicapped by inadequate funding. When originally established in 1972, the program was authorized at \$10 million for each of its first four years. This initial authorized funding level was probably in keeping with the program's important mandate of resource protection and management, and consistent with the costs of properly implementing a small program with a limited number of sites. Despite the authorization, no funds were actually appropriated for the program until FY1979. Between FY1979 and FY1985, appropriations increased from \$500,000 to about \$3 million by FY 1985. Between FY1985 and FY1989 they plummeted back to about \$2,500,000.

Since the 1988 reauthorization, funding for the program has gradually increased to the recently approved FY1992 level of

slightly over \$5 million. Although funding for the program has nearly doubled during this time span, it remains inadequate given the significantly expanded responsibilities of the program as a result of the 1988 Amendments. Due to the expanded workload and increased number of sites mandated by the 1988 Amendments and the Florida Keys National Marine Sanctuary Act of 1990, the funding situation has not appreciably improved relative to the program's responsibilities.

In fact, the current funding situation may be even more dire now than before, as existing sites compete for funding with sites under development. For example, it is our understanding that the NMSP is currently directing a significant portion of its budget towards the development of the Florida Keys National Marine Sanctuary. Although the money being allocated for this site is well short of the \$7-8 million recommended by the Review Team Report, it is creating a significant shortage of funds for the existing sanctuaries and other sites under development. The situation is especially bleak with respect to West Coast sites. The current funding level is inadequate for the sanctuary program already in place, much less for the expanded one mandated by Congress.

This funding deficit has led to staff shortages at designated sanctuaries and at headquarters, and limited funds available for management plan implementation. Monterey Bay Sanctuary, when

designated, will only have \$150,000 to implement the management plan for this heavily utilized area. Flower Garden Banks will have virtually no operating funds after its designation in January of 1992. Stellwagen Bank, scheduled for designation in March of 1992 will have less than \$100,000 allocated to it.

The NMSP remains one of the best bargains in the federal budget. The program's current funding level of \$5 million is minuscule when compared to the ocean area covered by the NMSP, which is approximately 5,200 square nautical miles. This does not include the pending designations which could add an additional 6,500 square nautical miles. The counterpart terrestrial program, the National Parks Service, has an operating budget of \$1 billion. A single park in the National Park System often receives more funding than the entire National Marine Sanctuary Program. As the Review Team's report stated, the NMSP budget amounts to less than 3% of the current budget for the National Park Service.

It will be far cheaper to protect our marine resources than to restore them (if possible) after they are damaged. An example is the New Bedford Harbor Superfund site. The cost for technical studies on how to partially remediate this site exceeds \$20 million and the estimate for removing less than half of the contaminants reaches \$100 million. Shouldn't we be spending more on our most important marine areas before they are damaged?

The NMSP Review Team estimated that an appropriate funding level for the sanctuary program, based only on those sites already in existence or under development, is on the order of \$30 million. This is a reasonable and fairly conservative estimate of what is needed to properly administer this program. As mentioned earlier, a detailed estimate of what is needed to properly run the Florida Keys Sanctuary alone is \$7 million. When sites currently in the pipeline are designated over the next two years, the total number of sanctuaries will likely reach fifteen or more (Florida Keys, Looe Key, Key Largo, Stellwagen Bank, Flower Garden Bank, The Monitor, Gray's Reef, Monterey Bay, Olympic Coast, Puget Sound, Channel Islands, Gulf of the Farallones, Cordell Bank, Fagatelle Bay, Norfolk Canyon).

#### NMSP Status and Visibility Within NOAA

The NMSP Review Panel recommended elevating the NMSP to Office level status within NOAA to increase its visibility and effectiveness. We support this recommendation, provided the budget for the program is also elevated. We believe that elevating the NMSP without an accompanying budgetary increase would serve little purpose and might actually be counter productive. Unless sufficient funding is provided, the additional bureaucracy that might come with office status would only further drain what limited funding is available.

**Sanctuary Designation Process**

Though we have been highly critical of unnecessary delays and the extended length of time required to get some sites designated (over 10 years for Flower Garden Banks), we do not believe these were the result of problems with the sanctuary designation process. Rather, they were the result of a lack of commitment to resource protection by elements within certain federal agencies and limited funding and staff resources. Too often, these agencies, most notably the Office of Management and Budget, seemed more concerned with protecting the interests of resource exploitation than in resource protection as mandated by law. We remain supportive of the current designation process, recognizing that it could use some fine-tuning. Primarily the sanctuary program needs support from the Administration and a willingness to eliminate unnecessary bureaucratic delays and unreasonable federal agency demands regarding proposed sanctuary resource use. Lacking this, Congressional designation will remain a necessity when the Administration refuses to take its responsibility for resource protection seriously.

Provided that Administration support is forthcoming, the current designation process is the preferred method of designating sanctuaries. One strong advantage to the process is that it

provides an opportunity to educate, involve, and receive comments from the general public. Public support is ultimately needed to make the sanctuary successful. Although not always fully utilized, the current process also provides an opportunity to employ NOAA's considerable scientific and technical expertise in site designation.

We agree with the Review Team's recommendation that adequate funds must be made available for the designation of new sites so that the cost of designating them does not compete with funding for existing sites.

#### Other Recommendations

##### Require Special Protected Zones

A major criticism levelled at the sanctuary program through the years has been its failure to provide the level of protection worthy of its name. An idea that should be considered during reauthorization is a requirement that all new sites contain core zones or wilderness areas which provide an enhanced level of protection. This is particularly appropriate for large sanctuaries. Setting aside such non-consumptive marine reserve



areas would ensure that some portion of each sanctuary is maintained in a relatively pristine and natural condition. Such areas can have high value for research purposes and for protecting brood stocks for fisheries replenishment. Several countries, including New Zealand and Australia, have had considerable success in establishing and maintaining such areas. We should learn from their experience.

#### Clarification of Regulatory Authority

During the reauthorization process, consideration should be given to clarifying or strengthening the program's authority to address threats to sanctuary resources emanating from outside the sanctuary, (including activities affecting water quality), and to regulate existing valid leases and permits as may be necessary to protect sanctuary resources. Discharges of sewage effluent, dredge spoil disposal, and other activities occurring outside sanctuary boundaries that have the potential to damage sanctuary resources should be reviewed by NOAA prior to permitting any such activity. As the agency that has the resource protection mandate, it is imperative that NOAA have subsequent authority to carry out this mandate. This includes authority over other, federally permitted activities.

### Clarification of Liability Defense for Authorized Activities

During the reauthorization process, consideration should also be given to clarifying or limiting the liability defense for damage to sanctuary resources caused by activities authorized by Federal or State Law. While no particular agency should be relieved of the necessity of repairing damages to marine resources, the terms of liability should be defined.

### Visitors' and Interpretive Centers

A glaring weakness within the sanctuary program is the lack of adequate visitor, interpretive, and research facilities at most if not all of the designated sanctuaries. Almost all sanctuary offices piggy-back on existing federal or state buildings and visitor centers. For example, Channel Islands, perhaps the most developed sanctuary in the system, relies on the National Park Service Visitor center and a privately run Sea Center to display sanctuary information. The lack of visible NOAA facilities has hampered the NMSP's efforts to establish an identity and carry out its mission with respect to public education, interpretation, outreach, and research activities. During deliberations on the reauthorization consideration should be given regarding the establishment of such facilities. These facilities might be a good initial focus for the proposed Foundation for Ocean and

Coastal Conservation should it become a reality and if funding is not available from other sources.

Reorganization of the NMSP

During reauthorization, the question of whether NOAA is the proper home for the NMSP frequently arises. Although we feel that it is important for the Administration, NOAA, and the NMSP to more fully embrace their responsibilities under this program and commit themselves to a leadership role in protecting the marine areas entrusted to them, we do believe NOAA is the appropriate home for this program. NOAA's scientific and technical expertise on the marine environment make it the logical choice.

Foundation for Ocean and Coastal Conservation, H.R. # 3694

Since funding is likely to remain a significant factor regarding the success of the NMSP, the National Estuarine Research Reserve Program (NERR), and other similar programs, the concept of a foundation for ocean and coastal conservation to leverage scarce funds for support of such programs has merit. CMC supports the

creation of such a foundation provided (1) its purpose remains narrowly focused and targeted; (2) it includes mechanisms to leverage funds; and (3) it is viewed as a supplement to funds appropriated directly to the target programs and not as a replacement for such appropriations. H.R. 3694 appears to be consistent with these provisions.

We further recommend that, as an incentive for the Foundation to solicit donations, a second leverage/match may be required that appropriated funds can only be spent to the extent that donations to the Foundation are received. Such a requirement combined with the match already outlined in the proposed legislation would result in four dollars being made available for every dollar appropriated. Finally, to ensure that the Board be knowledgeable with regard to the needs of the targeted programs, we recommend that it include representatives of organizations and entities that have long term experience and familiarity with the targeted programs including the NMSP and NERR.

#### Conclusion

The unprecedented public support and interest in the NMSP which has developed around the pending site designations, combined with the 20th Anniversary and Reauthorization of the NMSP (both of which will occur in 1992), provides a tremendous opportunity to

take this program a step further. Twenty years after its inception, the program can finally fulfill its mandate to conserve and manage special marine areas and can live up to its potential to provide comprehensive protection and safeguard America's most spectacular marine areas. However, despite its considerable accomplishments to date, the program has a long way to go before it reaches that goal.

The large, active and supportive public turnout around the country for public hearings on prospective sanctuaries provides ample evidence that the American public, increasingly aware of its marine heritage and the need to protect it, is ready to raise the level of stewardship provided by the sanctuary program.

Although this public support is the key to strengthening this program, alone it is insufficient to transform the program into what it should become. Leadership, commitment, imagination, ingenuity, and adequate funding, (all factors mentioned in the Marine Sanctuaries Review Team Report), must be provided by both the Administration and Congress if the program is to realize its potential and meet its statutory purposes and requirements. Although much has been accomplished, much more needs to be done. The Center for Marine Conservation looks forward to working with the members of the Subcommittees on the 1992 Reauthorization of the National Marine Sanctuary Program. Thank you again for this opportunity to present testimony on this important program.

Testimony of  
William P. DuBose, IV  
Vice President  
National Ocean Industries Association

Before the  
Subcommittee on Oceanography, Great Lakes  
and the Outer Continental Shelf  
and the  
Subcommittee on Fisheries and Wildlife Conservation  
and the Environment  
U. S. House of Representatives  
Washington, D.C.  
November 7, 1991

Good afternoon, my name is William P. DuBose, IV. I am Vice President of the National Ocean Industries Association (NOIA). NOIA, is a national trade association that represents more than 300 companies involved in all aspects of domestic offshore oil and natural gas operations.

NOIA supports the designation of national marine sanctuaries for the purpose of protecting unique and significant marine resources, as is provided for in the Marine Protection, Research and Sanctuaries Act. We believe that NOAA's regulation and administration of the program should remain intact. Congress and NOAA have established an orderly and rational process that provides for evaluating and designating appropriate sites for marine sanctuaries. This process includes analysis of the impact of site designation, identifying appropriate regulatory protections for sanctuary resources, and ensuring that multiple uses of sanctuary areas are compatible with protection of the resources. We would oppose any attempt to relax or reduce the standards for sanctuary designation.

In particular, we strongly oppose Congressional intervention in the process. Congressional designation of marine sanctuaries undermines the entire program, and takes NOAA funding and personnel away from the areas NOAA has placed on its Site Evaluation List. Past Congressional sanctuary designations have disregarded selection criteria and the existing regulatory process including the public input process and environmental impact statements required by the National Environmental Policy Act. Congress should recognize the value of the sanctuary site selection and designation process that it created under the Marine Sanctuaries Act.

We also are opposed to the use of the sanctuary program and the designation process as a

tool for prohibiting compatible multiple-use activities of marine resources over vast ocean areas. Multiple use is a stated purpose and goal of the marine sanctuaries program and should be furthered whenever possible. In that regard, we believe that responsible and environmentally sensitive development of oil and natural gas is compatible with the objectives of the sanctuary program.

We recognize, however, that in some cases, it may be reasonably determined that oil and gas activities, as well as many other activities, should be restricted or prohibited within a sanctuary as incompatible with protection of sanctuary resources. Nonetheless, we strongly believe that the environmental record of offshore oil and gas development demonstrates that such activity does not necessarily pose an unacceptable risk. Any determination to restrict or prohibit such uses should be made on a case-by-case basis using science, not unsubstantiated fear, as the basis for the decision. Our industry believes that all proposed national marine sanctuary sites should be scientifically defensible, based upon a thorough examination of the program criteria. The same standard should apply to the regulatory regime developed for a sanctuary site. Any decision to restrict or prohibit oil and natural gas activities or any activities within the boundaries of a marine sanctuary must be made only after a full analysis of the risks, potential mitigation and the socioeconomic impacts of a prohibition.

Members of the National Ocean Industries Association support the marine sanctuaries program and desire to see it implemented in a way that is true to the program's stated purposes and goals. We will continue to work with NOAA and Congress to ensure protection of our sensitive marine environments. I have attached a copy of the testimony presented last year to



two subcommittees of the Merchant Marine and Fisheries Committee that is more detailed in nature. I ask that it be make a part of the record for this hearing as well.

Thank you for this opportunity to present our views.

Testimony of  
Steve Chamberlain  
American Petroleum Institute  
Washington, D. C.

American Petroleum Institute  
National Ocean Industries Association  
Western States Petroleum Association  
International Association of Drilling Contractors

Before The  
Subcommittee On Fisheries and Wildlife Conservation  
and the Environment  
Subcommittee on Oversight and Investigations  
Of the  
House of Representatives  
Washington, D.C.  
June 7, 1990

Messrs. Chairmen and members of the Subcommittees, my name is Steve Chamberlain and I am Director of Exploration for the American Petroleum Institute. I am appearing today on behalf of the American Petroleum Institute (API), the National Ocean Industries Association (NOIA), the Western States Petroleum Association (WSPA) and the International Association of Drilling Contractors (IADC). API is a petroleum industry trade association that represents over 200 member companies who are engaged in all sectors of the petroleum industry, including Outer Continental Shelf oil and gas exploration and development. NOIA is an association of 325 companies engaged in every aspect of the offshore petroleum exploration industry. WSPA represents 50 companies that conduct the majority of petroleum operations in six western states. IADC represents over 1000 companies worldwide performing virtually all drilling onshore and offshore. We appreciate the opportunity to participate in this oversight hearing regarding the National Marine Sanctuaries Program.

API, NOIA, WSPA, and IADC support the concepts and objectives of the marine sanctuaries program. We agree with the findings and purposes of the Marine Sanctuaries Act, 16 U.S.C. Sec. 1431, that:

- certain areas of the marine environment possess qualities which give them special national significance;
- the sanctuary designation program can help provide

comprehensive and coordinated conservation and management of these marine areas that will complement existing regulatory authorities; and

- the sanctuary program should, to the extent compatible with primary objectives of resource protection, facilitate all public and private uses of the resources of the sanctuary areas not prohibited pursuant to other authorities.

The oil and gas industry has not objected to sanctuaries that have been designated to date. We are, however, concerned with how the sanctuary selection and designation process under the marine sanctuaries program appears to be working. We are concerned that the selection and designation process used in several sanctuary designation cases violate Congressional requirements of the Marine Sanctuaries Act and applicable National Oceanic and Atmospheric Administration (NOAA) regulations.

Industry's concerns regarding the marine sanctuary program must be considered against the background of the standards Congress established for the program. Specifically, Congress authorized the Secretary of Commerce to designate any discrete area of the marine environment as a national marine sanctuary only if the Secretary found the following specified conditions to exist (16 U.S.C. Sec. 1433):

- the area is of special national significance due to its resource or human-use values;
- existing State and Federal authorities are inadequate to ensure coordinated and comprehensive conservation and management of the area;
- designation of the area as a sanctuary will facilitate such coordinated and comprehensive conservation and management of the area; and
- the area is of a size and nature that will permit comprehensive and coordinated conservation and management.

For purposes of determining if an area of the marine environment meets the above standards, the Secretary of Commerce must consider a number of factors, including the manageability of the area, negative impacts produced by management restrictions on income-generating activities such as living and nonliving resources development, and the socioeconomic effects of sanctuary designation. 16 U.S.C. Sec. 1433(b). Congress also spelled out specific procedures for designation, including requiring an environmental impact statement on the proposed designation. 16 U.S.C. Sec. 1434.

In 1983, NOAA adopted its regulations governing the sanctuary program. 15 CFR Part 922. In those regulations are specific goals of the sanctuary program which include:

- enhancing resource protection through the implementation of a comprehensive, long-term multiple use management plan;
- providing for multiple compatible public and private use of the area;
- limiting sanctuary size to no larger than necessary for effective management.

Pursuant to its regulations, NOAA went through an extensive process, which included input from the States and public, to identify candidate sanctuary sites for its Site Evaluation List (the list from which potential marine sanctuaries are drawn). The Site Evaluation List (SEL) was completed in August 1983. NOAA regulations specify that new sites are to be added to the list if such sites are "important new discoveries or if substantial new information previously unavailable establishes the national significance of a known site." 15 C.F.R. Part 922.21(e).

In summary, Congress and NOAA have established an orderly and rational process which provides for evaluating and designating appropriate sites for marine sanctuaries. This process includes analyzing the impacts of site designation, identifying appropriate regulatory protections for sanctuary resources, and ensuring that multiple uses of sanctuary areas are compatible with protection of the resources.

Unfortunately, a review of a number of the site designations to date indicates that the required criteria and processes of the marine sanctuaries program have been disregarded. Congress has independently designated marine sanctuaries not on the SEL and has prohibited oil and gas activities in the absence of required impact analyses. Industry is very concerned that several sites to be designated in the near future will be unnecessarily large and potentially unmanageable and will restrict important multiple

uses of sanctuary resources. We are also disturbed that the sanctuary designation process appears to be used as a way to accomplish a political agenda of prohibiting oil and gas activities in offshore areas, and that other users of those areas, and their impacts on sanctuary resources, are not receiving equally stringent scrutiny.

The Cordell Banks, Monterey Bay, Northern Puget Sound and the Flower Garden Banks Marine Sanctuaries provide examples of problems the oil and gas industry sees as having developed in the marine sanctuary program.

#### Cordell Banks

API, NOIA, WSPA, and IADC did not formally oppose an oil and gas activity prohibition in the Cordell Banks Sanctuary. NOAA in its final rule designating the sanctuary (54 Fed. Reg. 22417, May 24, 1989), determined that the prohibition should be limited to the core area of the sanctuary -- on the Cordell Banks and within the 50 fathom isobath surrounding the Bank. NOAA correctly recognized that the necessary environmental and socioeconomic analyses of applying such a prohibition to the entire sanctuary had not been done. NOAA proposed to proceed with those evaluations in compliance with the law and regulations before making a decision whether to extend the prohibition. Congress, however, ignored NOAA's recommendation that only a limited prohibition was necessary and passed a joint resolution endorsing

the sanctuary designation, accelerating the designation schedule, and imposing a Congressionally-created prohibition on oil and gas activity over the entire sanctuary. On August 10, 1989, the President of the United States signed the House Joint Resolution (HJR 281) into law.

### Monterey Bay

On December 20, 1983 (48 Fed. Reg. 56252), after completing its evaluation of Monterey Bay, NOAA removed Monterey Bay from the list of active candidates for designation as national marine sanctuaries. NOAA concluded that Monterey Bay did not meet the statutory and regulatory criteria for designation because:

- two other national marine sanctuaries in California (Channel Islands and Point Reyes-Farallon Islands) had already been designated and assured protection of marine resources similar to those that would be protected by a Monterey Bay Sanctuary.
- the huge size of the contemplated Monterey Bay Sanctuary would impose impossible surveillance and enforcement burdens on NOAA. The Monterey Bay Sanctuary would be the largest sanctuary, 2532 square miles, almost twice as large as the next biggest sanctuary, the Channel Islands, which is approximately 1440 square miles; and
- there was already a wealth of existing marine conservation programs in place in the proposed sanctuary area.

Notwithstanding NOAA's decision, Congress again overrode the statutory and administrative processes and directed NOAA in 1988 to designate a portion of the Monterey Bay as a national marine sanctuary.



Since the proposed designation of Monterey Bay as a sanctuary is not yet official, we will, at this time, refrain from commenting upon either the designation or on any proposed prohibition on oil and gas activity in the sanctuary which may be included in the designation. We do wish to state, however, that while we recognize the concern for the possible effects of oil and gas drilling activities on sanctuary resources, we are equally concerned that prospective oil and gas areas in or near Monterey Bay not be arbitrarily closed off by an unnecessarily large area for the proposed sanctuary. We hope that NOAA will pursue, and that Congress will let NOAA perform, the required analyses and evaluations that are necessary preconditions to determining the appropriate size of the sanctuary and any specific protective management regulations for it that may be necessary.

We wish to point out that the resources of the proposed Monterey Bay sanctuary are presently under siege from a variety of uses which are adversely affecting the quality of those resources. A focus on the potential risks of oil and gas activities which have not and may never occur in the area should not deflect public and regulatory attention from the real and ongoing impacts that sewage discharges, urban runoff, commercial and recreational fishing, and a host of other activities are having on the Bay right now. We urge that any decisions to regulate or prohibit activities deemed incompatible with the goal of protecting sanctuary resources be made objectively, on sound

technical and economic information, and not be used as a means to discriminate against one particular category of activity for potentially political purposes.

#### Northern Puget Sound

API, NOIA, WSPA and IADC support the intent and goals of the sanctuary designation program and do not oppose, in concept, the Northern Puget Sound Sanctuary. We are concerned, however, that the proposed designation is not consistent with the marine sanctuary program's goal of supporting compatible, multiple uses within the sanctuary area. This is the first sanctuary that we are aware of that does not provide for alternate routes for tankers and other shipping. It is vital that adequate shipping lanes serving the existing industries, ports, oil and gas facilities and the local populace in and around the Puget Sound area be designated in the proposal.

#### Flower Garden Banks

We do not believe the regulations proposed by NOAA (54 Fed. Reg. 7953, February 24, 1989) for the implementation of the Flower Garden Banks Sanctuary are sufficiently precise so as to ensure that oil and gas operations near the proposed sanctuary in the Gulf of Mexico are not unduly restricted. We also believe that the lease stipulations of nearby oil and gas leases are sufficient to protect the sanctuary from any potential damage

from deposits or discharges of materials and substances beyond the boundaries of the proposed sanctuary, thereby rendering unnecessary the proposed no discharge prohibition.

Our experience with the Marine Sanctuary Program suggests that aspects of the implementation of the marine sanctuary program, including specific site designation decisions, may be going astray. API, NOIA, WSPA, and IADC believe the program should be guided by the following principles:

(1) As part of the process of designating each individual sanctuary, ensure that the impacts of all existing and potential future activities that pose a demonstrated risk to sanctuary resources are objectively evaluated. The impacts of decisions to restrict or prohibit those activities must be fairly analyzed before any such decisions are made part of the final sanctuary management program.

In this regard, we recognize that, in some cases, it may be reasonably determined that oil and gas activities, as well as many other activities, should be restricted or prohibited within a sanctuary as incompatible with protection of sanctuary resources. Nonetheless, we strongly believe that the environmental record of offshore oil and gas drilling demonstrates that such activity does not necessarily pose an unacceptable risk. Any decision to prohibit such activities must be made only after a full analysis of the risks, potential

mitigation, and the socioeconomic impacts of a prohibition. Multiple use is a stated purpose and goal of the marine sanctuaries program and should be furthered whenever possible.

(2) An effort must be made to distinguish between alleged threats to the specific marine resources under consideration for protection which are a mere possibility and those threats for which there is a reasonable expectation of occurrence. Sanctuary status should be reserved for those unique circumstances where other resource protection authorities have been demonstrated as inadequate.

(3) A high degree of management and protection to specific resources within reasonably limited geographic areas should be encouraged. The boundary of a sanctuary should be no larger than proven necessary for the protection of the resources for which the sanctuary is proposed. Consistent with this objective, the size of the sanctuary should not include additional buffer zones.

We hope that Congress will recognize the value of the sanctuary site selection and designation process that it created under the Marine Sanctuaries Act. That is the process NOAA now uses. In recent years, however, Congress has evidenced a willingness to ignore the provisions of the Act and run roughshod over the selection and designation process.

Congressional delegation of sites through legislation makes a

mockery of the statutory procedures and the National Environmental Policy Act. It renders meaningless the public input processes and environmental impact statements NEPA requires. It forecloses opportunities provided by the existing process to weigh the trade-offs involved in sanctuary designation, including the identification of appropriate sanctuary boundaries and protective conditions governing operation and uses of the sanctuary.

For sites not presently on NOAA's Site Evaluation List, the appropriate procedure to be followed is for NOAA to reopen the SEL for its five-year review. That public comment process is the appropriate means by which NOAA will be able to review the resources of the sites and scientifically determine whether they should be on the SEL and potentially be designated as a marine sanctuary. Congressional reordering of NOAA's processes and schedules on a site-specific basis can result in the Agency having to spend large amounts of scarce resources on evaluating sites that have little or no likelihood of meeting the designation criteria of the Act. At the same time, it detracts from the Agency's ability to make progress with evaluations and designations of more qualified candidate sites.

The oil and gas industry strongly supports the marine sanctuaries program and desires to see it implemented in a way that is true to the program's stated purposes and goals. If changes need to be made to the program, they should be made to

the general framework of the law's criteria, standards and procedures, and not through special purpose legislation directed to individual sanctuaries.

We are eager to work with Congress and the Administration on improving the designation and management of marine sanctuaries. We appreciate this opportunity to present our views.



# NATIONAL FISHERIES INSTITUTE, INC.

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**TESTIMONY  
OF  
LEE J. WEDDIG  
NATIONAL FISHERIES INSTITUTE**

**BEFORE THE  
SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION  
AND THE ENVIRONMENT  
AND THE  
SUBCOMMITTEE ON OCEANOGRAPHY, GREAT LAKES  
AND THE OUTER CONTINENTAL SHELF**

**NOVEMBER 7, 1991**

Mr. Chairmen and Members of the Subcommittees:

I am Lee Weddig, Executive Vice President of the National Fisheries Institute. NFI is the largest trade association representing the U.S. seafood industry. Our membership consists of over 1,000 companies engaged in all aspects of the industry, including harvesting, processing, and marketing. These companies have a vital interest in protecting and managing the marine environment as an important source of food for mankind.

I am pleased to appear before your Subcommittees in support of the reauthorization of the Marine Sanctuaries program under Title III of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA). Additionally, I will comment on the proposed Foundation for Ocean Conservation (HR 3694).

### MARINE SANCTUARIES

Conserving marine resources is of paramount importance to the seafood industry. Many thousands of families depend upon these resources for their livelihood, particularly in rural coastal communities where the seafood industry is vital to the future of local and regional economies. Worldwide, people depend on seafood for one-sixth of the animal protein they consume. Hence, conserving ocean resources is very important to the seafood industry and the consumers we serve.

From our perspective, the Marine Sanctuary Program is an important element in the regulatory scheme needed to protect fishery habitat. This habitat, we believe, is threatened in numerous ways. In this regard we agree with the conclusion of the National Symposia on Fish Habitat Conservation held in Baltimore this Spring that "Fish habitat is anywhere fish are found, and it's disappearing everywhere fish are found". Therefore, it behooves our industry to support efforts to preserve marine habitat.

It is equally important that efforts to preserve habitat be conducted in a manner that balances the needs of various user groups. In this regard we fully support section 301(b)(5) of the MPRSA which states that one of the purposes of Title III is to "facilitate, to the extent compatible with the primary objective of resource protection, all public and private uses of the resource of



these marine areas not prohibited pursuant to other authorities." Fishing is in most cases a pre-existing use of sanctuary resources. The protection of these resources and the concurrent existence of productive fisheries need not be diametrical.

The NFI recognizes that general uniform regulations would be inappropriate for all marine sanctuaries. Each sanctuary is part of a different, complex ecosystem and must be considered individually to ensure proper protection.

Nevertheless, we believe that the regulatory scheme proposed for Stellwagon Bank provides a sound model for regulating harvest in Marine Sanctuaries, which should be followed. Section I under Article IV and VI of the proposed regulations for the Stellwagon Bank National Marine Sanctuary provide that commercial fishing will not be subject to regulation under Sanctuary management. That responsibility will remain subject to plans developed under the Magnuson Fishery Conservation and Management Act (MFCMA).

Fishery resources are renewable, and for the most part, a dynamic and mobile resource. The responsibility to manage fisheries that spend all, or only part, of their life history in a marine sanctuary should remain the jurisdiction of the respective Fishery Management Council. Provision for such management is made in Section 304 of the MPRSA and should be retained.

In recent years NOAA officials have advocated various types of "user fees" to raise revenue from the fishing industry. The NFI supports user fees in those instances where NOAA provides a specific service to an individual company, such as providing ocean charts or voluntary inspection services. User fees, however, should not be used as a mechanism for increasing the heavy tax burden already imposed on our industry. In this regard, we would oppose any proposal to tax fishermen for navigating through sanctuaries or fishing within their boundaries.

The site selection process of the national marine sanctuary program, as explained in Title III of the MPRSA, requires sanctuary officials to consult with affected Agencies to determine whether a particular marine habitat requires sanctuary restrictions. Despite its lengthy, convoluted process, the sanctuary program managers must consult with the appropriate Fishery Management Councils to ensure that concerned industry representatives have the opportunity to participate in the site selection and designation process.

While we support the Marine Sanctuary Program and believe it can serve as a valuable tool in protecting marine resources, we do have some suggestions on how it could be improved. NFI members continue to be somewhat confused about the basic role of the Marine Sanctuary Program. Part of their uncertainty centers around what is meant by areas of "special national significance" which form the

basis of the program. We also question whether the program is supposed to protect specific coastal and marine areas which will function as "parks", or whether the program is intended to set aside larger areas so that potentially conflicting marine activities can be reconciled in some type of ocean-planning exercise. Finally, we do not understand how the Marine Sanctuary Program fits into other similar programs such as the National Estuarine Reserve Research System under Section 315 of the Coastal Zone Management Act and the National Estuary Program under Section 317 of the Water Quality Act.

Mr. Chairmen, our members are businessmen and women who depend upon the oceans for their livelihood. They are not experts in Marine Sanctuaries and do not always understand why the government seems to have so many different programs and agencies. It would be helpful if you provided a clearer explanation of what this program is supposed to accomplish, and how it relates to other federal and state programs.

In sum, NFI believes there is a need to identify and protect certain marine areas, and thus we support the general mission of the program. We recommend however, that the role of the program be better defined with relation to other similar programs; that management of fishery resources remain with the appropriate fishery management council; and that user fees not be imposed on commercial

fishermen for operations within a sanctuary area.

FOUNDATION FOR OCEAN AND COASTAL CONSERVATION  
IN THE UNITED STATES, AND FOR OTHER PURPOSES

HR 3694 proposes to establish a non-profit Foundation to monitor and support the sanctuary program. Such a Foundation would help meet the growing need to "learn more about our resources, to improve our level of stewardship...to focus beyond designation and management and concentrate on research, education, conservation, and restoration." Funding would be generated through private donation and matched with Federal grants.

The NFI supports the general idea behind this proposal. Matching grant programs have worked well in other areas and can provide an effective means of raising needed monies. Certainly, there is a need to expand the public's understanding of the importance of marine resources to their daily lives as a source of food. We do, however, have concerns about the apparent proliferation of similar programs, especially in this time of tight budgets.

Once again, we are not certain how the proposed Foundation will function in relation to existing programs and agencies, how the dissemination of information will be accomplished, and how the Foundation will define areas of national significance. For

example, we wonder how the work of the proposed Foundation would relate to the ongoing Sea Grant and Coastal Zone Programs, or the recently expanded estuary efforts of both NOAA and the EPA, or the work of the Fish and Wildlife Foundation in the Department of Interior.

Perhaps the time has come, Mr. Chairmen, for a comprehensive review of federal efforts to conserve ocean resources and educate the public about their purpose.

Mr. Chairmen, this concludes my prepared statement. I will be happy to answer any questions you or the members of your Subcommittees may have.

## Statement of

Frank M. Potter, co-chair  
Marine Sanctuaries Review Team

before

The Subcommittee on Oceanography, Great Lakes and the Outer Continental Shelf  
and  
The Subcommittee on Fisheries and Wildlife Conservation and the Environment  
Committee on Merchant Marine and Fisheries

November 7, 1991

I appear before this joint hearing as one of the chairmen of a special panel, asked by the Assistant Administrator of NOAA for National Ocean Systems, Ms. Virginia Tippie, to give to her and to the agency a report on the strengths and weaknesses of the marine sanctuary system, established in 1972 by legislation drafted in this committee. As a few of you already know, I was then an employee of this Committee and was fairly heavily involved in the drafting process of what became the Marine Protection, Research and Sanctuaries Act.

I have given a copy of our report to the Committee and would ask at this point that the report, entitled *National Marine Sanctuaries: Challenge and Opportunity*, be included in the record of these hearings, together with this statement which, in the interests of time, I will summarize.

#### History of the Panel

The twelve members of the panel were identified and recruited in October, 1990. Our first meeting took place in Washington, in late November of that year. We met again in Key Largo, Florida in January 1991 and had our final meeting in late February, at which time the panel unanimously adopted the report that you see before you and presented it to Dr. Tippie. I might add in passing that we were never under any pressure to soften our recommendations to achieve consensus, and so we were fortunate in never having to find a Lowest Common Denominator.

The selection criteria used to pick the members of the panel were, I understand, to find individuals who were expert in some aspect of the community with an interest in the coastal region and who could be relied upon to see that no important element of concern to the marine sanctuary program was overlooked. I might add a

comment of my own at this point: I was very much impressed by the competence, dedication and commitment to excellence that each member of this panel displayed. Seldom in my professional career have I been in a position to associate myself with such a dedicated, and ultimately successful, enterprise. No member of the panel is or was a federal employee at the time, nor did anyone on the panel receive any compensation for their activities beyond reimbursement for travel expenses.

#### Information Base

The panel was furnished with a range of information; we had several documents from the sanctuaries office and we had easy access to people who were knowledgeable about the sanctuaries program. Included in this last category would be Dr. Carleton Ray and Geraldine McCormick-Ray. The Rays had worked on a report of their own under contract to NOAA, which was available to us in draft format. This report, entitled *A Future for Marine Sanctuaries*, offers a number of important insights into critical elements of the program and I ask that a copy be included in the record of these hearings. I might also add that Dr. Ray has been involved in the sanctuaries program since its beginnings and was a consultant to this committee at the time the enabling legislation was written. If you should ever be looking for an institutional memory for this program, he is someone you would certainly wish to contact.

I might also add that I myself went out to California in January 1991 to talk to agency personnel involved in the Channel Islands Marine Sanctuary, and after our report was submitted, also went to Florida to observe the scoping hearings for the Florida Keys National Marine Sanctuary and to talk with people in the area who are interested in seeing that this effort proves to be success-

ful. I also met with all the existing sanctuary managers at their annual meeting last spring.

### NOAA Response to Report

NOAA has been uniformly positive to the report of the panel. John Knauss, Administrator of NOAA, referred the report to an internal review group, chaired by Nancy Foster, and that group endorsed the panel report completely. The only disagreement that surfaced in its final report to the Administrator had to do with our panel's recommendation that NOAA should concentrate more on making existing sanctuaries work well than on creating new sanctuaries; the internal review group was divided on this issue.

### Panel Recommendations

You have our report in front of you and I will not attempt to paraphrase its conclusions and recommendations beyond saying that their thrust was that NOAA has the capability to make this program a success, but that it has not yet committed the resources necessary to make that happen. It is no secret that NOAA has, from its beginnings, demonstrated a certain ambivalence about its mandate to manage resources entrusted to it, as opposed to maintaining a certain distance from active management, in the interests of maintaining a scientific detachment from the process itself.

It was therefore our feeling that NOAA should make a definite commitment to making this program succeed, including, but not limited to, giving it the funds necessary to accomplish this. We also concluded that the program should be elevated within the agency from the relatively obscure corner it now occupies. Today one might say that the sanctuary program is the runt of the NOAA litter, receiving an occasional pat on the head and crumb of support, but largely consigned to a dark corner of the establishment. Few people within the agency today can give you a clear statement of the vision or mission of the program, and this makes no sense when one considers its potential and the relatively trivial amount of funds that would allow this program to achieve the prominence that it deserves.

The panel was hopeful that this situation could be corrected; it also concluded that if NOAA was unwilling or unable to make this program work, it should step aside and allow another agency to do the job. Who does the job is far less significant than that the job deserves to be done and to be done well.

### Non-profit Foundation

On page 24 of our report, the Panel specifically endorsed the concept of a non-profit foundation to support the objectives of the program. I can think of a host of reasons why this is a good idea. I am aware that some environmental organizations are apprehensive that such an institution might compete for already scarce resources—but I am not persuaded that this would in fact be the case. A principal potential source of support for such a foundation would very likely be large commercial organizations, and their direct support for small environmental groups tends to be sporadic, at best.

I would not dismiss this as being a non-problem, but it does seem to me to be unlikely that such a foundation would be a serious competitor for these funds.

### Sanctuary Liability

I understand the concern that some have expressed that the sanctuary program might be held to be liable for damages for conditions created prior to the existence of the sanctuary. To the extent that this proves to be the case, I would suggest that it can be met by careful drafting of legislative language in the reauthorization legislation that we all hope will be adopted before this Congress adjourns next year.

### Conclusion

I think it unlikely that anyone here will have failed to understand that the view of the panel is that the Marine Sanctuaries Program has enormous potential for protecting and preserving a part of our natural heritage. Unfortunately, that potential remains largely unrealized.

The Congress deserves credit for saving the program during the early 80s, when the Reagan Administration was making every effort to kill it. I would hope that this Administration will find itself able to take a much more positive approach to the program, and could join with the Congress in making this program as successful as it deserves to be.

The cost of resurrecting this program would be relatively small, even in these days of tight budgets. And the rewards, in terms of an effective, exciting and successful program, would be great indeed.

# National Marine Sanctuaries: Challenge and Opportunity

A Report to  
the  
National Oceanic and Atmospheric Administration

Marine Sanctuaries Review Team

February 22, 1991



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Adopted at Interparliamentary Conference on the Global Environment, Washington, D.C., May 2, 1990

## *National Marine Sanctuaries: Challenge and Opportunity*

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### Introduction and Summary

The United States has long been at the forefront of international efforts to set aside national parks and other reserves on land, beginning with the establishment of the world's first national park at Yellowstone. One of the early champions of this movement was President Teddy Roosevelt, and he is still honored for his efforts.

This Administration now has a unique but fleeting opportunity to make a strong commitment to a new and equally high standard of stewardship in America's oceans and Great Lakes. The American public, increasingly aware of their heritage of marine resources, will support positive and immediate action to advance a strong and effective program to invigorate the National Marine Sanctuaries Program.

A successful sanctuaries program would not require a large staff, nor would it demand a disproportionate share of funds at a time when the pressure on all funding is heavy indeed. The program's budget has been so small, particularly when compared to similar programs in other agencies, that it could be multiplied tenfold without serious strain—sending a powerful signal to the rest of the world of this country's commitment to responsible environmental citizenship.

Among the major public benefits of a renewed Marine Sanctuaries Program would be opportunities to help restore depleted fisheries and promote environmentally sound recreation. The program can build on a solid track record of fostering cooperation among federal and state agencies charged with managing marine environments, and allow these agencies to conduct sanctuary-focused research into the impacts of environmental perturbations and other causes as well. Climate change, the maintenance of marine biodiversity and the accumulation of badly-needed resource data over long timeframes will be important products of this research program.

The Exxon Valdez disaster in Prince William Sound demonstrated dramatically the vulnerability of our marine environments and the public outcry that can result when these environments are seen to be mismanaged. The time to react to the mounting threats to all of our coastal and offshore environments is *now*, before the accumulated impacts become either irreversible, or reversible at costs that would produce severe strains on an already overburdened national treasury. A rejuvenated Marine Sanctuaries Program will proclaim a clear symbol of this Administration's intention to act.

We see a clear vision of what this program might become in the future:

By the year 2000, the National Marine Sanctuaries Program will manage a comprehensive and integrated system of the nation's most significant marine areas. This management will be based on ecologically sound, well-researched

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principles of resource protection and sustainable use and will focus as well on improving public understanding of the nation's marine heritage and in extending sound marine resource management principles to areas beyond sanctuary boundaries.

The steps that remain to be taken to achieve this vision are clear:

- The Administration should request, and the Congress should provide, a budget that is adequate to carry out this program.
- Priorities should be established to establish the Florida Keys and the sanctuaries on the central California coast as the centerpieces of this renewed effort.
- The National Marine Sanctuaries program should undertake an aggressive program to communicate this program to other agencies in government and to the public, and should work hard to establish cooperative relationships with the groups and organizations who share a stake in its success.

The vision is within our grasp. To achieve it, we need only stretch out our hands and our imaginations.

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### **Background**

In November, 1990, this panel was asked by NOAA's Assistant Administrator for Ocean Services to review the National Marine Sanctuaries Program and to make recommendations on ways to improve it. This report identifies a number of potential opportunities to revitalize the sanctuaries system, and to enhance its position in the foreground of international efforts to protect and preserve a critical element of man's heritage.

While the panel is critical of some elements of the program, it concluded that the inadequacies of the past several years were due not so much to neglect or malign indifference to the marine resources involved as they were to an ambivalence about the nature of, and need for, active leadership and management of a complex set of biological and social systems, coupled with the always difficult problem of competition for scarce personnel and funds.

The personnel associated with the program have helped and supported the efforts of the study effort. Our requests for information have been promptly met, and the cooperation of the program managers has been generous.

It seems scarcely necessary, in these days of heightened environmental awareness, to underscore the importance of coastal and marine resources to a healthy and functioning ecosystem. A few excerpts from current and authoritative sources put these issues into perspective:

"...the margins of the sea are affected by man almost everywhere, and encroachment on coastal areas continues worldwide. Habitats are being lost irretrievably to the construction of harbors and industrial installations, to the development of tourist facilities and mariculture, and to the growth of settlements and cities. Although difficult to quantify, destruction of beaches, coral reefs and wetlands, including mangrove forests, as well as increasing erosion of the shore, are evident all over the world. If unchecked, this trend will lead to global deterioration in the quality and productivity of the marine environment."

GESAMP: The State of the Marine Environment; UNEP Regional Seas Reports and Studies No. 115, 1990

"The coastal zone is where land, sea and atmosphere interact, and has the highest biological productivity on earth. It is also home to most of the world's population, who depend on its resources and largely determine its state of health. Global change due to growth in resource consumption and population will have its biggest impacts in the coastal zone. Six out of ten people live within 60 kilometers of coastal waters, and two-thirds of the world's cities with populations of 2.5 million or more are near tidal estuaries. Within the next 20-30 years, the population

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of the coastal zone is projected to almost double.

"The more people use the oceans for waste disposal, the fewer living resources will be available. The ecosystems and resources of the coastal zone are rapidly deteriorating due to intense and increasing human pressure, including poorly planned and regulated urban, industrial, commercial and agricultural development, and over-exploitation of living resources. Coastal engineering and development projects are modifying coastal ecosystems on a very large scale. Wetlands, coral reefs, and seagrass beds are the ecosystems most at risk.

\* \* \*

"Billions of dollars and thousands of lifetimes have been spent worldwide to understand and regulate human impact on the sea and its resources. But the efforts have not even approached what is needed. Most often, they have focused on symptoms rather than causes. In general, we have not yet grasped the concepts needed to manage relations between people and the oceans. The challenge for the next 20 years is to redress this basic misunderstanding and develop suitable institutions and management mechanisms.

\* \* \*

"Priority actions—

"Ecosystems that most urgently need protection from unplanned or poorly regulated coastal development include estuaries, saltmarshes, mangroves, and other wetlands; seagrass beds; and coral reefs. Governments should greatly accelerate the establishment and effective management of coastal and marine protected areas. Where possible, the protected areas should be integrated as part of a comprehensive planning mechanism for all uses of coastal ecosystems (as pioneered by the Great Barrier Reef Marine Park Authority in Australia)."

Caring for the World: A Strategy for Sustainability (2nd Draft, 1990), prepared by IUCN, UNEP and the World Wide Fund for Nature

"Whereas... The Global water cycle is essential to life on earth... and Short-term economic benefits from exploitation of ocean and water resources deprive future generations, diminish the quality of life, disrupt international stability and global security, and even threaten life itself;

NOW, therefore, be it resolved that... nations join together in international convention and by individual action in an effort to...



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\* \* \*

- Develop and implement comprehensive national and international plans to manage activities in the coastal zone... (and)

\* \* \*

- Protect marine biodiversity and productivity by developing mechanisms to preserve sensitive coastal areas such as wetlands, barrier islands, estuaries, coral reefs, and other critical wildlife habitats”

Resolution unanimously adopted at the Interparliamentary Conference on the Global Environment, Washington, D.C., May 2, 1990 (Appendix E to this report)

The National Marine Sanctuaries Program provides a unique opportunity for this Administration to make a strong commitment to a new standard of environmental stewardship. A relatively small investment of resources could produce enormous returns in the form of a model resource protection system.

A successful sanctuaries program would not require a large staff, nor would it demand a disproportionate share of funds at a time when the pressure on all funding is heavy indeed. The program's budget has been so small, by comparison to similar programs in other agencies, that it could be increased tenfold without serious strain—sending a powerful signal to Americans and the rest of the world of this country's renewed commitment to responsible environmental citizenship.

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### **History of Marine Sanctuaries**

The Marine Protection, Research and Sanctuaries Act of 1972 (sometimes called the Ocean Dumping bill) passed both Houses of Congress without serious opposition. The marine sanctuaries provisions of the legislation (Title III of the Act) were a product of earlier congressional concerns to protect specific coastal regions. The principal purpose of the legislation was identified as protection of threatened coastal and marine resources. Although the issue of "multiple use" was raised from time to time during the debate, the concept was never fully discussed, nor were the ambiguities in the concept ever discussed, still less resolved.

Following enactment of the legislation, not much happened for several years. The first marine sanctuaries were established in 1975, one of them when the legislation was found to offer protection for the wreck of the Monitor—a fortuitous conjunction of need and resource, since no other laws on the books at the time were adequate to handle a job that all conceded was important.

The next four sanctuaries (Channel Islands, Gray's Reef, Looe Key and the Gulf of the Farallones) were created in the closing days of the Carter Administration. The Reagan Administration was strongly opposed to the program, but Congressional support, coupled with tacit NOAA assistance, kept it alive through eight lean years. One tiny site, Fagatele Bay in American Samoa, was designated in that period. Independent studies of the program in 1980 and 1981 by the Congressional Research Service and the General Accounting Office supported the view that the sanctuaries program filled important needs that were not otherwise being met.

The Cordell Bank was designated in 1989, bringing the total to eight areas, with several others under active review. Congressional impatience with the pace and operation of the program had also escalated; the results of this impatience produced direct legislative involvement in the selection and in some cases designation of the Florida Keys, Monterey Bay, Stellwagen Bank, Flower Garden Banks, Washington Outer Coast and Northern Puget Sound areas, shortcutting a process that, to some observers, had become glacial.

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## History of panel

The members of the panel (identified in Appendix A) were invited to serve as an independent review team in October 1990. The twelve members of the panel are associated with a range of institutions and organizations concerned with coastal and marine issues. No panel members speak for their organizations in this endeavor—each represents his or her view alone, informed by contacts within that organization and experience acquired in connection with its activities.

The panel first met in November 1990 to receive a briefing from people associated with NOAA and/or the sanctuary program, and from G. Carleton Ray and M. Geraldine McCormick-Ray, consultants who were asked to prepare a report on the sanctuaries program and to assist the panel in its efforts. This report, entitled "A Future for Marine Sanctuaries," proved to be a highly useful resource to the panel.

The panel next met on Key Largo in January 1991 to talk with people actively involved in sanctuary operations and to visit the Key Largo Sanctuary itself. The panel's co-chairman visited the Channel Islands Sanctuary office and spoke with state and local officials involved in the California sanctuary program. The panel last convened in February 1991, when it met to complete and present its final report.

The panel was also given copies of a NOAA internal review report of the program, dated August 30, 1990, reflecting the results of a May, 1990, retreat designed to evaluate the program and to help prepare for an anticipated reauthorization of the program in 1992.

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### **Recommendations**

In general, the panel has concluded that this program affords this Administration a rare opportunity to take important and bold steps to protect and enhance these important parts of our heritage, and in the process, to create a model for the rest of the world of how to respond to this challenge. What makes the program particularly attractive is that these results can be accomplished with a relatively small investment of time, effort and funds.

In the past, NOAA's administration of the Marine Sanctuaries Program has lacked leadership, focus, resources and visibility, and the program has suffered for it. It has generally been treated as the runt of the NOAA litter, receiving only occasional pats on the head as executive and legislative attention was focused on its larger and better endowed siblings.

We consider it unproductive to discuss the failings of the program in detail; in a sense, it is not even particularly important. In fact, given the serious limitations imposed upon it, it has achieved some notable successes. What matters today is where it can and should go from here. It is for this reason that we prefer to concentrate on the positive directions the program should take from this point on.

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### **Program Leadership**

The objective of the Marine Sanctuaries Program should be to develop a global reputation for enlightened resource management. This objective is within NOAA's grasp, should it choose to reach out and take it.

NOAA should look at examples of successful programs in similar areas. One excellent place to begin would be to examine closely the history and operation of the Great Barrier Reef Marine Park in Australia. That undertaking (relying in part, as it happens, on the U.S. legislation that created the Marine Sanctuaries program) has been a pioneer in its field, and we can learn much from it. A brief summary of some pertinent facts about the Great Barrier Reef Marine Park is included as Appendix B. To be sure, there are important differences between the two programs, but there are important similarities as well. Some of their initiatives and concepts might travel well.

From its inception, NOAA has been cautious about assuming the mantle of management of resources entrusted to it. There has always been a certain tension between the worlds of science and information development, on the one hand, and active management or involvement with resources on the other; the marine sanctuaries program has not been spared from this split focus. We believe that the

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sanctuaries program does require active management, and that NOAA should accept the fact and acknowledge that it can and will carry out the job.

NOAA should be willing and able to provide leadership to the sanctuary program, should announce this to the world, and should then carry it out to the best of its abilities. If it cannot or will not, it should acknowledge that to be the case and step aside in favor of another agency of government that is willing to do the job. It is no secret that other candidates exist, and would welcome the opportunity.

Regulations can be defended and supported if they are designed to meet an identified and accepted objective and are no more restrictive than they need to be to accomplish that purpose. If sanctuary management is, and is seen to be, fair and competent by the communities and activities affected by their programs, these communities and activities will support the program. Cooperative programs have already been developed for the management of sanctuary operations in the Florida Keys, and these might be used as models in other regions as well.

Successful management of any program or resource implies the ability and willingness to regulate, and to enforce those regulations when necessary. This does not, however, connote heavy-handed, harsh or insensitive law enforcement. On the other hand, regulations must be enforced, if they are to be believable.

The two sanctuaries in the Florida Keys offer a useful model of enlightened regulation, based on education of the visitors to the sanctuaries.

The United Nations Conference on Environment and Development (UNCED) in Brazil in 1992 would be an ideal place for this nation to demonstrate the initiatives that this panel urges for enlightened stewardship of these important natural and cultural resources.

#### *Recommendation:*

*The Administration, NOAA and the Marine Sanctuaries program should commit themselves to a leadership role in protecting the resources entrusted to them.*

---

### Program Vision

Today the Marine Sanctuaries Program lacks a clear statement of its vision. We found that some individuals did have a vision for the program, but that vision was not widely shared, nor did every vision coincide. The panel spent considerable time identifying what it felt to be a positive and acceptable vision for the program, attempting to define a sense of where the program should be if it were to achieve the goals that we felt reasonable and achievable.

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By the year 2000, the National Marine Sanctuaries Program will manage a comprehensive and integrated system of the nation's most significant marine areas. This management will be based on ecologically sound, well-researched principles of resource protection and sustainable use and will focus as well on improving public understanding of the nation's marine heritage and in extending sound marine resource management principles to areas beyond sanctuary boundaries.

In support of this vision, the panel identified the following objectives:

- By the beginning of the next century there should be in place a national marine resources program to identify and manage the resources of the Nation's coastal and offshore waters and Great Lakes. This program will fully evaluate the ecological, cultural, historic, recreational, economic and esthetic values of these resources, and provide a foundation for a reasoned and comprehensive management plan to protect these vital assets.
- We will have made significant progress toward the development of an integrated network of coastal and marine protected areas through strengthening existing sanctuaries, identifying and designating additional sites within the twelve biogeographical provinces surrounding the Nation. Habitats and living resources in these areas will be identified and provided with whatever protection is necessary to ensure their sustainable existence as elements of functioning biological and ecosystems; cultural resources will be similarly protected.
- Adequate funding and resources will be available to allow the National Marine Sanctuaries Program to achieve these important objectives. This will be made possible through increased public support and awareness, innovative funding mechanisms and better use of existing resources within and outside the program.
- The principal goals of the program will be to protect and sustain the use of our biological and cultural heritage. Educational and interpretive programs will communicate to citizens of this and other nations the strength and value of our marine heritage. In this way the educational and interpretive programs will develop a strong constituency for its future. Research and monitoring programs will allow us to evaluate local and global forces that affect these resources.
- It will be necessary to consolidate and coordinate the public and private agencies concerned with these resources as a means of developing an integrated, multiple-use system for their development and protection. Only in this way can the conflicting demands upon these resources be reconciled in such a way as to establish the minimum amount of interference consistent with the overriding need to protect their existence and to conserve them for the use of future generations. The program will be characterized by a

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willingness to learn and to cooperate in defining and achieving objectives shared by government agencies, non-government agencies and private citizens and groups.

- Decisive action will be necessary to allow this program to achieve its objectives. Leadership will be required at the national level to support it and to ensure the commitment of adequate financial and human resources. Without this support, the program must inevitably fail; with this support, it can only succeed.

Our vision may not be that of NOAA, which certainly can and should feel free to identify and incorporate its own concept of what the program should be and become. It is not important that ours be the vision adopted; it is essential that some vision be adopted, and that it be made widely known within the agency, within the government and public affected by the marine sanctuary program.

#### *Recommendation:*

*NOAA should identify and endorse a clear vision of what it believes the Marine Sanctuaries program should become, consistent with its statutory mandate.*

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### Program Mission

The panel concluded that the Marine Sanctuaries Program lacks a clear statement of its mission: today the priorities that must be established within the agency to accomplish its objectives, once established. In defining the purposes of the original legislation, the Congress took important steps to establish a mission statement, but its conception of its mission should reflect the events that have occurred since then. We suggest the following mission statement, with the clear recognition that Administration policy may suggest alternatives, but again with the adjuration that some statement of mission be adopted and published.

We propose the following:

The principal mission of the program is to identify, manage and protect areas of the marine environment of special national significance. To the extent that the following objectives are consistent with this purpose, it is also the mission of the program:

- to identify and designate a representative network of biogeographically representative ecosystems to ensure the continuing biodiversity of our coastal and marine areas, linked to an international system of biosphere and

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wilderness reserves aimed at maintaining the diversity of the Earth's natural living communities;

- to use the authority provided by its own and other legislative instruments for comprehensive and coordinated conservation and management of these marine areas, and areas that affect them directly;
- to develop coordinated plans for the protection and management of these areas with appropriate federal, state and local agencies of government, and with other public and private interests that are concerned with the continuing health and resilience of these areas;
- to support, promote, and coordinate scientific research (especially long-term monitoring and other long-term research projects) on the resources of these marine areas and changes that may be taking place within them;
- to enhance public awareness, understanding, appreciation and wise use of the marine environment;
- to facilitate all public and private uses of these marine areas not prohibited pursuant to other authorities;
- to create models of and incentives for ways to protect and conserve these marine areas;
- to maintain, restore and enhance the diversity of the biological resources by providing places of refuge for exploited species that depend upon these areas to survive and propagate themselves; and
- to make a positive contribution to global programs encouraging conservation and sustainable use of resources.

It would be a useful and important step for NOAA, once it has defined a statement and mission for the program that it finds congenial and acceptable, to set goals to be met as the sanctuary program goes forward. These goals should be as specific as circumstances will allow, and should incorporate specific timetables and programmatic milestones.

Some of those goals will not be achieved within the timeframe contemplated. This should be considered not as a disaster, but as an occasion to review those goals, to identify those events that made it impossible to achieve them, and to define more realistic objectives in the future.

It must be pointed out that this goal-setting process implies an ability to monitor events, both in headquarters and in the field, that does not appear to exist today. This situation should be rectified and much clearer communications should be established in both directions in the chain of command.



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*National Marine Sanctuaries: Challenge and Opportunity*

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*Recommendation:*

*A mission statement should be articulated, identifying the steps necessary to achieve this vision.*

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Budget

The existing budget for the Marine Sanctuaries Program is quite inadequate to meet the demands made upon it today, far less tomorrow, if the program is to be revitalized. An annual budget of \$4 million does not begin to meet the needs of the sanctuary program in place today, to say nothing of the program as it has been and is likely to be further extended by Congressional initiative.

While the panel was not able to specify a definitive budget for the program, we can recommend a process for constructing an adequate budget. There are currently eight sanctuaries in the system, and another eight well on the way to designation. An adequate budget for the Florida Keys National Sanctuary alone would be \$7–8 million. The California sanctuaries, as a group (Channel Islands, Monterey Bay, the Gulf of the Farallones and Cordell Bank), should probably receive a similar level of funding.

NOAA should build the sanctuaries budget in three components: (1) a budget for operating the sanctuaries themselves, which would allow each sanctuary to accomplish its fundamental purpose, (2) a separate budget for selecting and designating new sanctuaries, and (3) a budget for administering the program itself. Final funding for the program should allocate amounts for each of these components. We estimate that this process would produce a budget on the order of \$30 million.

Although this would represent a major increase in the budget for the program, the returns on this investment would be at least as great, in our view. To put this into perspective, it might be noted that such a budget would be approximately 3% of the budget of the National Park Service for the coming year.

The panel was intrigued by the concept of a regime in which federal funds might be matched by contributions from state or local sources, or perhaps be augmented by the activities of a private foundation, as already described. If such a system could be established, the leverage of federal funds might be considerably increased.

Can the program achieve the position that we envision as a model of environmental resource management without additional funds? We do not believe that it can.

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### *Recommendation:*

*The Administration should request, and the Congress should authorize, a budget adequate to accomplish the purposes of the individual sanctuaries, to establish new sanctuaries and to administer the program. For these three functions, an adequate budget would be on the order of \$30 million.*

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### Improving the Designation Process

A substantial part of the budget for, and management of, the marine sanctuary program is now committed to the process of preparing environmental impact statements and the designation of new sanctuaries. Not harmful in itself, this process is draining scarce resources from the actual management of the sanctuaries already in existence. More than half of the personnel in the program office work in Washington, D.C. As the program grows, the balance between the field and headquarters staff should be reexamined and the duties and responsibilities of headquarters staff redefined.

The designation process should be tied directly to the program's mission and vision. Emphasis should be placed on designating areas for the purpose of integrated ecosystem management of marine areas, using the criteria identified in this report (Criteria, Number and Size, page 22).

NOAA should explore the possibility of assigning parts of this process to other competent agencies within the Department, where this can be done without vitiating the integrity of the work that they also handle. It should also reevaluate its priorities between acquiring new sanctuaries and adequately dealing with those already in the system. There is very little sense to biting off new pieces when it is already incapable of digesting the old ones. If the Congress chooses to impose new burdens on the program by designating additional sanctuaries to be managed and work to be done, the Congress should also provide the necessary funds and support to allow this job to be done competently and thoroughly.

At present, the sanctuary designation process is estimated to require two and a half years. This may be necessary, but it may also be that this process could be shortened. This question deserves attention.

The sanctuary Program Development Plan is now more than eight years old—it is possible that it is still perfectly suited to the program, but that should be determined anew. In like manner, the Site Evaluation List and the process for determining what gets placed on it should be examined in the light of whatever decision the agency makes on the future of the sanctuary program.

The Ray report bears on this point:

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"A thorough revision of the SEL is necessary to resolve how ecologically scaled representativeness may be achieved — i.e., at regional, local, and inter-regional scales — and to define what a "nationally significant" sanctuary system should be. Sanctuaries established on a hierarchy of scales are required to address such issues as sustainable resource use, biodiversity, and global change. This is a challenging scientific question that requires state-of-the-art GIS, modelling, and interpretation."

#### *Recommendation:*

*Adequate resources must continue to be available to the sanctuary designation process. Rather than divert these resources, new funding and personnel resources are needed to manage effectively the sanctuaries already in the system.*

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### Transfers of Resources and Responsibility to the Field

The responsibilities of the sanctuary headquarters office should be clearly established, and the lines of authority should be clearly drawn. One step that should be taken at the headquarters level would be to bring in national research and education coordinators, to work with appropriate people in the field and in other agencies as well. Specific responsibilities that should be assigned to these individuals would include: (1) monitoring ongoing projects; (2) developing research and education agendas to support sanctuary activities; (3) developing program priorities and helping to arrive at an overall program budget; (4) facilitating communication of the results of programs developed within individual sanctuaries; and (5) developing guidelines for research and education activities and helping to define job descriptions for people handling these duties in the field.

Having achieved this, it is the panel's view that there may be merit to relocating regional managers from headquarters to new regional offices much nearer to the field sites. The sanctuaries are, after all, the program's *raison d'être* and the places where the program will ultimately succeed or fail. Such regional centers need only accommodate the existing regional management framework located in Washington, and they should wherever practicable use space and support staff already available to the sanctuary program or its partner agencies in the states. The establishment of effective ways to maintain regular communication upward to headquarters and outward to site managers and partner agencies must be an integral part of this structural adjustment.

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### *Recommendation:*

*Headquarters should be charged with placing sanctuary managers, setting policy for sanctuary operations, providing strong and effective guidance where appropriate, and monitoring sanctuary operations to see that policies and guidelines are being followed. At the same time, much responsibility for sanctuary management and operations should be decentralized and assigned to regional managers, or sanctuary managers that are closer to the sanctuaries themselves.*

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### Responsibilities of Sanctuary Managers

A first-rate sanctuary program will need first-rate people to operate the sanctuaries, and we ought not to settle for less. The current selection process relies heavily upon assignments from the NOAA Corps, provides little or no opportunity for adequate training of managers, nor does it provide the guidance and resources they need to do the job properly.

If NOAA expects their field personnel to work effectively with state and local organizations, it must include, as an important element of the selection process, the ability to locate these people. Once in place, regional and sanctuary managers should be given encouragement and authority to handle field operations without constant reference to headquarters for decisions that should be made in the field. Responsibility must be assignable, and with it, accountability.

Permits for nonconsumptive scientific research and educational activities ought to be delegated to field offices instead of being referred to Washington, as they now are. If the field offices fail to fulfill their responsibilities, the solution is to find the right people in the field—not to further separate authority from responsibility by clasp it to headquarters' bosom. Clearly some permits, involving significant risk to the integrity of specific areas, should still be discussed at length with agencies and people elsewhere, but this decision ought properly to be a function of the discretion vested in the management of the system.

Regional and sanctuary managers should be encouraged to develop new initiatives and innovative programs with local communities and organizations. An excellent start has been made in the Channel Islands sanctuary to develop a range of educational materials and programs, using resources cooperatively developed with schools, museums, colleges and other community groups. This kind of effort should be given wide encouragement within NOAA in general, not just within the sanctuary program.

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Managers should be enabled and assisted to develop better lines of communication between sanctuaries, as well as up and down the chain of command. Periodic meetings of sanctuary managers, augmented by electronic mail capabilities, will help all stay abreast of new developments, as well as take advantage of new concepts that appear to be working in one or more of the individual sanctuaries.

As the sanctuary program develops, it will inevitably be necessary to shape it to meet local conditions. When and as the Florida Keys sanctuary takes shape, it will clearly be beyond the ability of a single manager to administer the entire area, as well as work with state and local officials concerned with the area. Similarly, as the sanctuary system in California, and perhaps in the state of Washington, matures, it will almost certainly be necessary to break these areas into subsets, perhaps under the supervision of an overall sanctuary supervisor. Here again it will be important to allow the delegation of authority to the appropriate officials in the field.

#### *Recommendation:*

*The program must attract, train and support effective sanctuary managers. Once in place, managers should be encouraged to work closely with local groups and institutions.*

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### Personnel

Many of the goals and objectives that we believe reasonable for this program to achieve depend upon the adequacy of financial and personnel resources if they are to be achieved. Today those resources are clearly insufficient. Requesting adequate financial resources is the responsibility of the Executive Branch; providing these resources is that of the Legislative Branch.

A successful marine sanctuaries program will ultimately stand or fall on the quality of the personnel who carry it out. This is no reflection upon the capabilities of the people currently involved in the sanctuaries program; it is a clear call to identify and select the right people to make it work in the future. While there are undeniable advantages inherent in drawing site management personnel from the NOAA Corps, it is important that steps be taken to develop and maintain a cadre of non-Corps managers who can make a long-term commitment to the marine sanctuaries program as a career.

The program we propose is exciting and will attract highly competent and motivated personnel. These people exist. They should be identified, recruited where necessary, trained and given the tools to allow them to do the job.

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### *Recommendation:*

*The program needs to identify, retain or attract and train high-caliber personnel.*

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## Visibility

The Marine Sanctuaries program today is a well-kept secret with respect to other agencies in NOAA, the Department of Commerce, the Federal Government and the public at large. Most of those who know something about it seem to have reservations about its adequacy or importance. Even in the areas where sanctuaries are located, it is often not easy to find the sanctuary office, let alone people who are familiar with and supportive of sanctuary operations.

With all these constituencies, the sanctuary program needs, and would profit from, much wider visibility and awareness of what it means, and what it could mean to them. We are particularly sensitive to the need to develop closer cooperative relationships with people in the communities directly affected by sanctuary operations, and with those who are most likely to visit and use sanctuaries, but these are far from their only potential supporters.

Many more people have heard, and have strong positive feelings, about the Grand Canyon and the Great Barrier Reef than will ever visit them. The Florida Keys, to take one example, could achieve that kind of public support and encouragement if NOAA were to develop the public awareness and understanding that it could, if it were to seize the opportunity.

The panel feels strongly that the program should be elevated in importance within NOAA, removing it from the relative obscurity in which it now languishes and placing it at a point in which the Administrator is directly involved. If the Sanctuaries Program were redesigned as a Program Office within the National Ocean Service, at the level of the four other offices within that service (Charting and Geodetic Services, Ocean and Earth Sciences, Ocean Resources Conservation, and Assessment and Ocean and Coastal Resource Management), it would provide a measure of visibility and vitality that it critically requires. If the program is to achieve the kind of preeminence that we believe it capable of, and assume the leadership role that we contemplate, it must clearly assume a larger role within the agency.

### *Recommendation:*

*The sanctuaries program needs to be given higher visibility and status within the agency, with other agencies and with the public. It should be elevated to*

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### *Office status within the agency.*

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### Priorities

The panel has looked carefully at the priorities that appear to exist today, and at what it considers those priorities might be, if the program were to be reorganized and reconstituted.

In terms of the Sanctuaries Program itself, the panel considered it a matter of highest priority to put into place as soon as possible an effective, well-managed operating model. For a number of reasons, chiefly having to do with the integrity and geographical reach of the system, we recommend that the proposed Florida Keys National Marine Sanctuary be so designated and established.

The highest level of priority should be given to strengthening the management of existing sanctuaries and developing more effective, well-managed operating models from the sanctuaries now in the process. For different reasons, the sanctuaries currently under development for the Florida Keys and the central California sanctuaries offer outstanding opportunities. NOAA should recognize this, take full advantage of the opportunity and make a priority of the rapid development of these excellent models.

Given its integrity, geographic reach and its international reputation, the Florida Keys is an excellent choice to be brought on line as soon as this can be done. This would involve an open and complete public planning process, a well-designed research and monitoring agenda, an expanded enforcement program patterned after the one already in the Key Largo and Looe Key sanctuaries, and an education and outreach program. It would also require adequate staffing, clear rules and regulations, adequate facilities, the continuation of an already well-designed and defined working arrangement between the federal and state governments, with participation as appropriate on the part of local authorities, an adequate operations budget and the infusion of additional trained and competent managers. It will probably be useful to subdivide the management of the Florida Keys Sanctuary into as many as four subdivisions under the overall direction of a sanctuary supervisor, retaining close working arrangements between the subdivisions.

Similarly, the marine resources of Monterey Bay and the central California coast, combined with their visibility and the extraordinary level of public support for resource protection and the sanctuary program in the area, offer an important opportunity to the sanctuary program. The strong public support in the area makes this priority particularly attractive, since it virtually assures success if an effective sanctuary system can be established. Equally importantly, the informed and environmentally-oriented community in the area will view this effort as a failure unless the sanctuary's boundaries and regulations provide real protection from

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threats to this system's integrity, including oil and gas activities, vessel traffic, overfishing and pollution. The operational elements mentioned in connection with the Florida Keys sanctuary will also be important for this effort.

Although these would surely be ambitious undertakings, the time, effort and resources required to create such model operations would be well repaid in heightened public appreciation and support for the Marine Sanctuaries Program.

It is also important to assign some sense of priorities in the designation and establishment of sanctuaries themselves. Individual sanctuaries may, and usually will, satisfy a number of criteria. It would be useful and important for the sanctuary system to encompass areas adjacent to the United States in such a way as to incorporate a true sample of each of the twelve biogeographical provinces that have been identified in U.S. waters. As it happens, the Florida Keys precisely meets this criterion. Within these provinces, it should further be possible to take steps to protect and enhance their biodiversity, and this is an important element of an effective sanctuary system.

A number of values are likely to be incorporated in any existing or proposed sanctuary. Some of these values will be present, to some degree, in most areas. Principal among these are the biological and ecological values that they contain, but other values are to be found as well: recreational, economic, esthetic and cultural/historical. How these are to be ranked or weighted is a complex decision, not within our capability to resolve at this time. Still, it is important to recognize that this multiplicity of values does exist and that enhancing and protecting these values is a vital element of this program.

#### *Recommendation:*

*A high priority should be assigned to strengthening the management of existing sanctuaries and utilizing the tremendous opportunities to develop strong effective model sanctuaries in Florida and California. In addition, priority should be given to new sanctuaries that will enhance biogeographic representation and plug gaps in the existing system.*

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### Cooperation with Other Programs

At present, the sanctuary program is small and is not generally known within other agencies of government, or to the public at large. Where it is known, it is frequently regarded as an irritant or as essentially irrelevant to ongoing activities.

This program cannot achieve its objectives acting alone, nor should it attempt to do so. Others, inside and outside government, have parallel or complementary



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objectives, and it is only good sense to work with these to achieve a purpose that all can support. A vigorous outreach program would, we believe, pay handsome dividends.

Heightening the visibility of the program will be an important step in this direction—people can't help you do your job if they don't know what it is or who you are. The other half of the equation involves selling your program—letting people know how they themselves will benefit from what it is you are trying to accomplish.

There are already several federal agencies whose programs intersect those of the Marine Sanctuaries Program. Many of them are within NOAA (Hazardous Materials, Strategic Assessment, Endangered Species, Marine Mammals, Sea Grant, NMFS, Coastal Zone Management are included in this list, and there are almost certainly others). Sanctuaries and their operation intersect with several other existing NOAA programs, and some thoughtful work should be done on the best way to integrate these. Among these, NMFS, Sea Grant, CZM, etc. are currently performing research that could be done in marine sanctuaries, thus satisfying needs of both agencies. For example, marine mammals can be found, some of them also endangered or threatened, in the California sanctuaries. Precisely who assumes what role for their protection and management may not be clear—it certainly was not clear to us. Other agencies in the federal government have extensive responsibilities that affect coastal and marine ecosystems, such as the Department of the Interior, the Corps of Engineers and the Environmental Protection Agency.

State governments also have considerable powers and duties that affect the management of resources, as well as education, research and law enforcement. Close working relationships with state agencies is an essential element of an adequate marine sanctuaries system, and important strides have already been taken in this direction. Cooperation with the State of Florida is strong and effective, and should serve as a model for such efforts in other states.

All services of NOAA, and its state partners in the sanctuaries program, should examine the merits of using these sanctuaries as their public "windows" on the marine environment—places wherein not only the sanctuaries program itself but also other NOAA and state marine environmental management and research programs can reach a much broader public audience than is currently available to them. The benefits of heightened cooperation among agencies, and of much greater public awareness and understanding of marine environmental issues, and government initiatives to address them, will be obvious.

Local communities have perhaps the strongest direct interest in a workable marine sanctuary program, since it is here that the use of the sanctuaries takes place. In some cases today, relationships with local institutions are already close and supportive, but there are, of course, always additional steps that might be taken.

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In situations where other agencies share enforcement and protection responsibilities with the Marine Sanctuaries Program (e.g., marine mammals and endangered species), memoranda of understanding should be developed, specifying what tasks each should take on. These memoranda should be used to strengthen and enhance, not weaken, the program's protective mandate.

The Chairman of the Great Barrier Reef Marine Park Authority, has commented eloquently on this point: "...it will be clear that the key to any successful program will be public support. This only comes from deliberate and enthusiastic involvement of the public in all elements of planning and research. I cannot emphasize this point too strongly. Bureaucrats, who often judge the value of their lives according to the power they have wielded either publicly or covertly, fight like the devil to prevent the public from having any real say. This is a formula for failure. If you want to do what we have done, you will need to work very closely with the Non Government Organisations (NGOs) as your allies. None of the above implies that the public actually has the decision making power. Neither does it suggest that you will ever get agreement from all of the public, nor that you will get full agreement from any sector of the public (e.g., an NGO). However, as Churchill said about democracy 'it is a very poor system, but it is much better than any alternative'." (Letter from Graeme Kelleher to Frank Potter, December 20, 1990.)

NOAA should develop an energetic and comprehensive program to increase public awareness and support of marine sanctuaries. One step might be to provide a range of materials for public education, such as interpretive exhibits, formal and informal education materials, public television programs, videotapes and other educational materials. These could be made available in local communities through aquaria, museums, dive shops and other organizations interested in water activities. The Great Barrier Reef Marine Park Authority has developed just such an array of informational materials, and it plays an important role in ensuring that program's justly deserved international reputation. We are not here proposing yet another barrage of brochures and glossy handouts, but material with some depth and weight, that will inform what we believe to be an interested and supportive constituency for the rejuvenated program.

The story that NOAA should be communicating is that of the positive impact that a healthy marine ecosystem can have, and the steps that are necessary to achieve this objective. Where concentrated tourist use of a sanctuary can threaten the quality of conditions in the sanctuary, that story must be told. NOAA has already produced materials for some of the waters for which it is responsible in Florida, and this effort deserves to be amplified and communicated to a wider audience.

National and local organizations with environmental concerns are an obvious constituency for the marine sanctuary program, and here NOAA's record is mixed. In some regions, good working relationships have evolved, and in others, bureaucratic dragons thrive. It would be very much worth the effort to improve these connections wherever possible, enabling organizations with strong local and

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national memberships to pass on the message that the process of cleaning up and protecting critical marine areas has begun and that this is an issue in which everyone has an important stake.

A critical element of this message is that these systems, like most environmental systems, are ones for which a longer-term vision is necessary than is customary in decision making today, particularly in the public sector. In the recent past, there has grown up a doctrine of discounting assets for the future. Such a concept may perhaps make sense when applied to standard economic assets and values—it makes no sense at all when applied to the physical environment that supports life on this planet. To treat the future of an essential element of a support system that involves tiny elements of an ecosystem, such as microbes and algae, and large elements of that system, such as trees, whales and man, as irrelevant in the very near future (a discount rate of 10% assumes a zero value in less than eight years) is, it seems to us, a philosophy that is leading us in the wrong direction. NOAA could play an important role in reversing this trend.

#### *Recommendation:*

*The Marine Sanctuaries program must develop effective, cooperative and supportive working relationships with other institutions and organizations with related interests.*

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### Experience in Other Programs

We have already mentioned the Great Barrier Reef Marine Park as an important potential model for the U.S. system. NOAA could profit from a careful review of that park, with particular attention being paid to the success which it has achieved, as well as the problems that it still faces. The working arrangement that has evolved over the years between the Australian national and state authorities may suggest similar possibilities for consideration as the U.S. system develops. The Florida Keys sanctuary is a place where such insights might be invaluable.

Other nations have taken steps that might offer useful information on opportunities and risks for an ambitious program for marine sanctuaries. Canada, England, New Zealand and Scotland have all done some innovative work in this field. The office of the World Conservation Union (formerly International Union for the Conservation of Nature) in Gland, Switzerland has developed a large database of national laws and regulations that might be particularly useful in designing such a system.

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A relatively small amount of time and energy spent in examining these experiences might be well invested in seizing opportunities and avoiding problems in the United States Marine Sanctuaries Program.

#### ***Recommendation:***

*NOAA should carefully examine and evaluate similar programs now in place or under development in other countries.*

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### **Criteria, Number and Size**

The number of the units in the National Marine Sanctuaries Program, as well as their size, will be determined by the designation of sites based on a clear set of site selection criteria. These criteria focus attention on the marine areas that best fulfill the goals and objectives of the program.

Site selection criteria may be divided into two broad categories:

A) Outstanding marine areas (on a relatively large geographical scale) representative of the biogeographical provinces of the U.S. coast and,

B) Areas that meet one or more of the following criteria:

- They contain habitats and/or living resources that are unique in their occurrence.
- They contain unique or outstanding ecological, biological, geological, oceanographic, cultural or historical resources.
- They contain habitats critical to rare, threatened or endangered species.
- They contain habitat critical to the conservation of living marine resources.
- They represent relatively pristine/undisturbed coastal marine resources.
- They are areas in which harvest refugia (reproductive refuges) should be designated to maintain or replenish depleted living resources.
- They are areas of particularly high natural productivity.
- They are significant in maintaining biodiversity in coastal marine ecosystems.

The marine sanctuary system today contains several distinct areas, each with its own unique set of resources, problems, and opportunities. These are located in five of the twelve recognized biogeographical provinces in U.S. coastal waters.

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Beginning off the coast of Maine and proceeding in order, they are: Acadian, Virginian, Carolinian, West Indian, Louisianian, Vera Cruzan, Californian, Oregonian, Sitkan, Aleutian, Arctic/Subarctic and Indo-Pacific. (For a more complete description of these, refer to the study by Carleton and Jerry Ray: "A Future for Marine Sanctuaries.")

Five of these now contain sanctuaries that meet at least some of these criteria; when and if Stellwagen Bank, Norfolk Canyon and Flower Garden Bank are added, this will bring the total to eight. In the case of the Florida Keys, Channel Islands, Gulf of the Farallones, and Cordell Banks, the units provide sufficient resources to protect biodiversity and offer an opportunity to create one or more reproductive refuges where depleted species could recover.

In giving attention to the completion of the marine sanctuary system, it is important that the sanctuaries program not attempt to be all things to all who bring their expectations to them. Early scientific attention should be given to the thorny question of how much representation of a biogeographic province is "enough." It should be borne in mind that the ideal would be for sanctuaries to be capable of management as functioning ecosystems. The regions encompassed should be large enough to be managed with full regard to those elements and resources that allow them to function as ecosystems. Useful guidance may perhaps be taken from the Brundtland Commission's recommendation that 12% of the Earth's surface should be set aside within protected areas, although the adequacy of that standard in marine environments warrants more study—it may be too low.

The larger sanctuary units (like the Florida Keys or Monterey Bay) can provide the focus and marshal the resources necessary for a coordinated long-term research and monitoring program. Such an effort could be directed toward achieving comprehensive understanding of the systems ecology of marine areas of significant size and scope. Models developed for these areas will be useful not only to inform the ongoing resource management for the specific sanctuary units, but also as models which might be applied to other and larger marine areas throughout the world.

It is understood that while the National Marine Sanctuary Program can hope to develop informed and comprehensive management plans for the sanctuary units themselves, the effective management of the majority of marine resources, both living and non-living, will require the coordinated efforts and significant levels of research funding from other NOAA offices as well as other agencies of government.

We are unquestionably seeing increasing signs of accelerating degradation of living marine resources. Marine sanctuaries offer the possibility of arresting, and perhaps even reversing that process, at least in some areas. In fact, this is already happening in some sanctuaries, although on a very small scale: Large fish are beginning to return to Looe Key after limitations were placed on the manner in which they may be taken.

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The global climate change that may already be occurring may be particularly relevant to fragile marine ecosystems. Today we have little ability to monitor those changes. Further, it might be possible—and if possible, it would certainly be enormously useful—to use marine sanctuary areas as laboratories to develop insights into relationships of resource protection to its long-term sustainable use.

The last twenty years has seen the evolution of the concept of “biosphere reserves,” or areas to be protected as critical elements of important ecosystems. The concept has taken hold on land, and a number of areas have been established that meet the criteria established for such regions. Marine sanctuaries would be a perfect example of what might be done with such a concept, and the Florida Keys Marine Sanctuary may be ideally situated for such status. The Man and Biosphere program should be reviewed in the light of its particular and potential relevance to a revitalized Marine Sanctuary program. Here again, NOAA is confronted by a real opportunity.

#### *Recommendation:*

*At a minimum, each of the biogeographical provinces in U.S. waters should be represented in the system, with one in each of these being sufficiently large to offer reasonable assurance that these regions will be adequately represented. In addition, sanctuaries should be established to protect natural and historical areas that contain rare, critical, unique, outstanding or otherwise special resources, and there should be further analysis of how much representation is required in the system.*

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### Outside Review

The panel has had an excellent, albeit limited, opportunity to examine the overall direction of the marine sanctuary program. Some deficiencies and shortcomings have been disclosed that, from the advantage of distance, seem fairly obvious, although they may not have seemed so to people charged with everyday operation of the program.

The program should continue to use outside review as a check on its progress. We are not requesting reappointment, but we do recommend that some comparable institution be created. Whether such a panel should be created as an “Advisory Committee,” with all the attendant rules and obligations that such committees are subject to, is beyond the scope of our review. Another possibility is that such a panel be given authority comparable to that of the Marine Mammal Commission, which can make recommendations to the Secretaries of Commerce and Interior that must be responded to.

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Individual sanctuaries could also profit from closer involvement with advisory groups. Some may feel that this could make it impossible to reach decisions—that operating in a “goldfish bowl” may inhibit sound decision processes. We find this argument unconvincing and suggest that local communities may find it much easier to support sanctuary activities if they are allowed to play a greater role in guiding their operations.

#### *Recommendation:*

*Regular independent review should be a continuing element of the sanctuary program.*

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### Creation of Supporting Institution

Organizations, some with federal charters, exist to fill these roles with respect to other programs. The National Park Service and Fish and Wildlife Service have such organizations associated with them.

Such organizations can serve as foci for national publicity programs, as centers for private fundraising to support individual areas, and to act as interfaces with local or commercial ventures anxious to play a positive role in furthering program objectives. Interactions between such organizations and their federal counterparts can be valuable for all concerned.

#### *Recommendation:*

*NOAA should explore the possibility of a national nonprofit organization that is in a position to advise and encourage the marine sanctuary program; local cooperating organizations can also be of great value to the operation of sanctuary programs.*

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### User Fees and Outside Support

In recent years, the concept of “user fees” has been widely discussed as a supplement to regular legislative appropriations. We are unable to specify what those fees should cover, what their level should be, or how they should be collected, but we do note the success of the “Golden Eagle Passport” program in the National Park System, and suggest it as a useful example for further study with respect to the sanctuary system.

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Fines and penalties from ship groundings and other violations of regulations are currently allocated to the sanctuaries themselves; this practice should be continued, and perhaps even amplified by making certain that all those funds be allocated to the sanctuary in which the violation occurred. Similarly, vessel confiscations as a result of criminal activities may continue to provide an important asset to the program.

NOAA may also wish to look into the possibility of establishing concession arrangements for activities associated with sanctuary operations, although we are aware that this is an area not without controversy, and that we may conceivably be opening Pandora's Box in suggesting it. Accordingly we do no more at this point than suggest it for further consideration.

#### *Recommendation:*

*Part of the costs of the sanctuary program should be borne by the constituencies it serves.*

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### Review of existing intergovernmental agreements

The sanctuary system has evolved and changed in the years since its inception. Arrangements that may have worked well in the past should be reviewed in the light of new circumstances and conditions. For example, the State of California has been assigned responsibility for regulatory enforcement in sanctuaries in and near state waters. Its enforcement budget and program are clearly inadequate to meet the demands on the system. Most of the funds supporting enforcement come from permit fees levied upon fishermen who operate in coastal waters. State enforcement agents are understandably reluctant to enforce regulations upon these fishermen, since vigorous enforcement might well drive some marginal operators out of business, thus further eroding the financial base of the enforcement program. The result, in the Channel Islands, at least, is that the local sea urchin and abalone resources have been devastated by overfishing; paradoxically, scarcely any of these animals can now be found within the Channel Island sanctuary itself. The "Tragedy of the Commons" reasserts itself, and we are the poorer for it.

A more useful example may suggest itself from the cooperative working arrangements with enforcement personnel in Florida. Here the concept of "interpretive enforcement" seems to work well, as it does in Australia, where enforcement responsibilities have been undertaken by officials of Queensland. In these cases, enforcement officers exist as an important element of public contact, not just as police officers checking permits and visitor activities, but also as helping visitors understand what activities may be harmful to the reef and how to avoid these.



### National Marine Sanctuaries: Challenge and Opportunity

Our remarks should not be taken as necessarily critical of California, but as suggestions that we may be able to learn useful lessons from other places, and that those examples could perhaps replicate themselves in new territories. In a similar vein, the educational programs that have been developed in California and Georgia (in connection with the Gray's Bank sanctuary) could well suggest themselves as useful models elsewhere in the sanctuary system.

Time has passed since the sanctuary system was first established, and NOAA ought now to be in a position to derive some useful experience from the history of individual sanctuaries, and to explore the possibility of transferring this experience elsewhere within the entire sanctuary system.

#### *Recommendation:*

*Existing intergovernmental arrangements with state and local authorities should be reexamined and, where appropriate, renegotiated by NOAA.*

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### Name of the program

There has been considerable discussion about the value of changing the name of the program. The panel concludes that the program's name should not be changed without a clear and compelling reason to do so.

#### *Recommendation:*

*The name of the program should not be changed.*

---

### Zoning

One characteristic of successful marine protected area programs is that they provide a complex and sophisticated conception of multiple use of marine resources, while at the same time ensuring the protection of vulnerable species, communities and habitats. Use of these resources can be separated by boundaries of space, time or both. Zoning of large sanctuaries is very much an option, and this is a practice that has been implemented with great success on the Great Barrier Reef. (Included with Appendix B is a matrix showing zoning practices in the Cairns Section of the Great Barrier Reef.) Zoning is also an important management tool in many other international marine protected area programs.

Zoning systems have also been suggested for sanctuaries in this country. Once the system begins to include large areas, such as the proposed Florida Keys Sanctuary,

### *National Marine Sanctuaries: Challenge and Opportunity*

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an effective zoning system will become an essential management tool. Within a properly designed sanctuary system some species and habitats will receive almost complete protection, but this is certainly not the case for all areas, at all times and in all places. There will undoubtedly be a requirement for zones of strict preservation, or "harvest refugia," but there will also be zones within which varying intensities and types of resource use can be accommodated. Zonation will allow a degree of protection not available outside sanctuary boundaries.

NOAA has already initiated the study of zoning concepts, both internally and in discussions with managers of protected areas in other nations. This work must continue, with a view to putting in place effective zoning systems when management plans are prepared during the designation process for large new sanctuaries such as the Florida Keys sanctuary, and those proposed for Monterey Bay, the Outer Washington Coast and Puget Sound. An important part of this task will be to determine what resource uses and scales of use are appropriate to the various zoning categories that are identified.

#### *Recommendation:*

*NOAA should devise and adopt an appropriate zoning system for national marine sanctuaries as a priority matter, beginning with the new, large sanctuaries now in the designation process.*

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### **Relationship with National Estuarine Research Reserves Program**

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Another thorny and ultimately unresolved issue has to do with the relationship between the marine sanctuary program and the estuarine research reserve program authorized by the Coastal Zone Management Act (which, not entirely coincidentally, was also enacted into law in 1972). The programs have much in common, and NOAA, not unreasonably, moved both programs into the same office.

A comparison of the two programs (Appendix C), is instructive, showing the similarities between the two programs, as well as the differences, which are also important. If, as we suggest, the sanctuaries program should be elevated within NOAA, and perhaps moved elsewhere within the agency, it will also be important to maintain good working relationships between the sanctuary and estuaries programs.

"These programs both have strong features that can be enhanced via synergism. Some estuarine and marine sanctuaries coexist in an ecological and regional context, especially over wide continental shelves.... Management of these can be coordinated and directed toward land/sea ecosystem protection. Coordination could benefit program

### *National Marine Sanctuaries: Challenge and Opportunity*

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management, education, and research, as well as simplify management."

We concur completely.

Recommendation:

*The Marine Sanctuaries Program and the National Estuarine Research Reserve Program have much in common and should continue to be encouraged to work closely together in the future, as they have in the past.*

---

### Development of research and education agendas

Here, we can do no better than to cite the Ray report once again:

"The NMSP, with experience gained from Estuarine Research Reserves and other programs such as the National Park Service, should develop a research agenda that is directed towards conservation and management, but that is also open to basic research. This requires that a research coordinator at a senior level be hired to help identify research needs at national and site levels, and to develop a research and monitoring PDP. Efforts should be made to develop projects that can address the major environmental problems of the '90s and that are cognizant of the many on-going programs of NOAA and other agencies, as well as internationally.

"Similar to the Research Agenda, an Education Agenda would guide educational goals and differentiate between education and public relations. Such an Agenda could determine how best to utilize services that can complement both the Program and local interests."

A clear agenda for research and education would go far to demonstrate to the public NOAA's commitment to a vital, functioning marine sanctuary system.

The National Research Council has created a Committee on the Coastal Ocean to focus on coastal ocean science, particularly on issues that are not currently receiving adequate attention, and that might benefit from a fresh assessment effort using data and information available today.

The sanctuaries program is not represented on this Committee, but it should be, because this Committee's efforts are concentrated on precisely the kinds of issues that an ongoing and alert sanctuary program must deal with.

### *National Marine Sanctuaries: Challenge and Opportunity*

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#### *Recommendation:*

*NOAA should develop clear research and education agendas for the Marine Sanctuaries Program. These agendas should be fully integrated with the research and education agendas of other NOAA agencies and also, to the maximum extent possible, integrate these agendas with those performed outside NOAA by other federal agencies, and private and international organizations.*

*NOAA should ensure that all its coastal and marine programs are appropriately represented on the National Research Council's Committee on the Coastal Ocean.*

#### *Panel Conclusion:*

*If the issues discussed in this report are clearly addressed by the Administration and the Congress, the Marine Sanctuaries program can achieve success and meet the expectations created when it was established in 1972. All that is required is the resolve to make it happen.*

# *Appendices*

## **Appendix A**

### **Members, Marine Sanctuaries Review Panel**

#### **Co-chairmen:**

Potter, Frank; Secretary-General, International Network for Environmental Policy

Yurick, Douglas; Assistant to the Assistant Deputy Minister, Canadian Parks Service

#### **Members:**

Brown, Jim; Executive Training Director, NAUI

Calkins, Jay; Director of Marine Extension, Sea Grant, Georgia

Dykstra, Jake; President (ret), Pt. Judith Cooperative

Humke, John; Vice-President for Agency Relations, Nature Conservancy

McVety, Pamela; Director, Division of Marine Resources, Florida Department of Natural Resources

Naab, Michael; Director, Maritime Preservation, National Trust for Historic Preservation

Peschke, John; American Petroleum Institute

Sobel, Jack; Director, Marine Protected Resources Program, Center for Marine Conservation

Taylor, Sarah; Executive Director, Critical Area Commission

Webster, Steven; Education Director, Monterey Bay Aquarium

## **Appendix B**

### **GREAT BARRIER REEF MARINE PARK —PERTINENT FACTS**

The Great Barrier Reef Marine Park in Australia, currently some 350,000 square kilometers in area, was established as a marine park by the Great Barrier Reef Marine Park Act of 1975. It stretches along the northeast coast of Queensland for roughly 2,000 kilometers, and contains within its boundaries roughly 2,900 individual reefs. At its northern end, the Great Barrier Reef is narrow, consisting mainly of "ribbon" reefs; to the south it widens, and is characterized by "patch" reefs.

That legislation, drawing in part upon precedents in the United States' enactment of the Marine Protection, Research and Sanctuaries Act of 1972, created a Marine Park Authority, a Consultative Committee to advise the government and the Authority on matters pertaining to the Park. The Act also requires zoning plans for all areas within the Park, with extensive public participation and involvement; these must be submitted to the Parliament for review.

#### **Marine Park Authority**

The Authority has three members, and is responsible to the Minister for the Environment, currently Ros Kelly. The Chairman, currently Graeme Kelleher, holds a full-time position; the other two members, one of whom is nominated by the Queensland government, serve in a part-time capacity. The Authority deals directly with the Minister, but is not a part of, nor does it deal directly with, the Ministry of the Environment. The Minister can direct the Authority's actions, but only to the extent that they do not run contrary to the purposes of the Act.

#### **Ministerial Council**

In 1979, the Great Barrier Reef Ministerial Council was established to coordinate policy on the Reef with the Commonwealth government and the Queensland State of Government. Each government provides two members; these currently represent environment and fisheries ministries. The Council is chaired by the Minister. It has no statutory basis, having been created as a pragmatic way to deal with the shared and coordinated management of the Great Barrier Reef region, which comprises federal waters and state islands. (The powers of the federal government stop at the high-water mark.)

### **Consultative Committee**

This is a 12-16 member advisory body set up to represent various interests in the Reef. Named by Minister and Authority, it represents interests including tourism, fishing, conservation, science and the Aboriginal and local government communities. Some members of the Committee must be nominated by the Queensland government. True to its name, it has no power to direct that steps be taken, but can offer its views to the Minister or the Authority, *if asked*.

### **Reef planning and zoning**

The planning process is elaborate and extensive—visitors to the park are invited to make recommendations for improvement in the zoning plans as they are being developed and amended. At present, the park has four subdivisions: the Mackay/Capricorn Section is the southernmost of these, followed by the Central Section, the Cairns Section and the Far Northern Section, ending at the northern tip of the continent. The Cairns Section was recently rezoned by the Authority following a period of extensive public comment and review, increased from three to five months to accommodate needs for broad representation. It should be noted that public participation is essential to the process, and is mandated by statute.

Attached is a matrix showing various activities permitted (in this case the Capricornia section) on the Reef, together with a summary of the zoning plan and process.

### **Staffing**

The Authority has a small office (staff of four) in Canberra, and a larger office in Townsville, immediately adjacent to the Reef itself. At present, The Authority employs roughly 100 people.

### **Aquarium**

Also in Townsville is an aquarium, operated by the Authority and paid for by admission fees and Aquarium shop sales. In 1989-90, approximately 200,000 people visited the Aquarium, diminishing to some extent the pressure upon the Reef itself, and informing the public about the need to use the Reef more wisely.

In 1989-90, the Parliament appropriated \$1 million (Australian \$) to provide working capital for the Aquarium. Receipts from Aquarium activities were approximately \$1.618 million from the Aquarium.



**Human use of the Reef**

The Marine Park Authority estimates the value of Reef-related activities to be on the order of \$1 million per year, in terms of tourist income to the area. In 1986-7, the last year for which figures are available, the Authority estimated an estimated 162,000 visitor trips to the Reef, resulting in 1, 018,000 visitor nights spent at resorts in the area, and the contribution of \$175.6 million at resorts in the area.

**Budget**

For the fiscal year ended June 30, 1990, revenues for the Park Authority were \$12.492,874. Of this amount, \$9.266 million was contributed by the Commonwealth, \$2.191, 140 was contributed by Queensland for day-to-day management, and the balance was miscellaneous revenues (permit fees, fines, etc.).

For the same period, expenses were \$11,647,583 (\$1.534 administration; \$1.902 research and monitoring; \$1.269 planning and management; \$1.201 education and information; \$948 environmental impact management and \$4.791 to Queensland for day-to-day management).

**Management and enforcement**

There is in place a complex arrangement between the Commonwealth and the state of Queensland covering management of the area and the cost of building and maintaining the capital assets associated with it. In essence, much of the day-to-day, hands-on activity associated with the operation of the park has been delegated to the various agencies within the Queensland government, chiefly the Queensland National Parks and Wildlife Service.

## **Zoning**

"The Great Barrier Reef Marine Park is not a National Park. It is a multiple-use protected area, fitting the definition of Category VIII of the classification system used by IUCN, the World Conservation Union (8). It also meets the criteria for selection and management as a Biosphere Reserve (Category IX), although it has not been formally proposed or established as one. The Reef was inscribed on the World Heritage List in 1981 as a natural site (Category X).

"Through the use of zoning, conflicting activities are separated, areas are provided which are suitable for particular activities and some areas are protected from use. Levels of protection within the Park vary from almost complete absence of restriction on activity in some zones to zones within which almost no human activities are permitted. The only activities which are prohibited throughout the Park are oil exploration, mining (other than for approved research purposes), littering, spearfishing with SCUBA and the taking of large specimens of certain species of fish.

"In the zoning plans which have been developed so far, there are three major categories of zones. They are:

1 Preservation zones and Scientific Research zones	Equivalent to IUCN Category 1, Scientific Research/Strict Nature Reserve. The only human activity permitted is strictly controlled scientific research.
2. Marine National Park zones	Equivalent to IUCN Category 11, National Park. The major uses permitted are scientific, educational and recreational.
3. General Use zones	Equivalent to IUCN Categories IV, Managed Nature Reserve and VI, Resource Reserves. Uses are held at levels which do not jeopardize the ecosystem or its major elements. Commercial and recreational fishing are generally permitted, although bottom trawling is prohibited in one of these two zones.

"The zones are fixed during the life of a zoning plan (generally five years). They are complemented by generally smaller areas which give special protection from time to time to animal breeding or nesting sites, to sites in general use and other zones which are required to be protected to allow appreciation of nature free from fishing or collecting and to sites suitable for scientific research.

"Because there has been a dramatic increase in the use of the Marine Park by tourists, the existing zoning system, which focuses on fishing, is proving inadequate. There is increasing competition for tourism use of particular sites. Usually these sites are near major areas of coastal development (e.g. Cairns or Townsville) or have particular attributes which make them suitable for tourism - the Whitsunday Islands, for example.

"At a special conference arranged by the Authority in late 1988, participants agreed that there was a need to incorporate into the zoning system a tourism strategy. This strategy would identify those areas which are particularly suited to tourism development and those that should be retained in their natural state, undisturbed by such development.

"The strategy is being implemented through the zoning system, initially in the rezoning of the Cairns Section of the Marine Park. It will be extended to the other three Sections as they are rezoned during the next five years. Initial zoning of the entire Marine Park was completed on schedule in 1988—Australia's Bicentenary.

"A major constraint in zoning for tourism has been that many tourists like to observe the natural qualities of the Great Barrier Reef undisturbed by fishing. Modern technology allows them to do this from semi-submersible vessels and from underwater observatories. If carried out with care these activities can have very little if any effect on the Reef's ecosystem. They are, in other words, compatible with the Authority's goal. The need to provide for such activities in zones which are protected from fishing has led the Authority to consider adopting a slightly different zoning system as follows:

Zone Name	Relation to Previous Zoning System
1. Preservation Zone	Incorporates old Preservation and Scientific Research Zones
2. Marine National Park Zone	Same as old Marine National Park B Zone
3. Marine Park Recreation Zone	Same as old Marine National Park A Zone
4. General Use (No Trawling) Zone	Same as old General Use B Zone
5. General Use Zone	Same as old General Use A Zone

"The new names have been designed to describe more accurately the qualities of the zones. The major change proposed to the zoning system is to divide each of the zones other than the Preservation Zone into two categories:

"Category 1 - no structures (for example, floating hotels, pontoons or mariculture) will be permitted. Mooring buoys may be permitted.

"Category 2 - such structures are permitted provided they meet environmental guidelines. A permit is required.

"The adoption of this new zoning scheme will allow the Authority, in association with interested members of the public and with other agencies, to develop and apply tourism strategy for the whole of the Great Barrier Reef. The aim will be to ensure that the whole Reef will not become dotted with tourist and other structures while at the same time providing for careful development on reefs which are suitable for that purpose. The strategy should allow the Authority to continue to provide for protection of the Great Barrier Reef while allowing careful development —in other words, to provide for sustainable development."

Source: "Sustainable Development of the Great Barrier Reef Marine Park," Graeme Kelleher, Chairman, Great Barrier Reef Marine Park Authority)

### **Conclusions**

Management and operation of the Great Barrier Reef has much to commend it as a model for dealing with problems associated with the United States Marine Sanctuary Program. It seems particularly relevant to the Florida Keys sanctuary recently designated by Congressional initiative, although there are other useful lessons to be derived as well.

One significant distinction that must be borne in mind is that at the time the Great Barrier Reef was established, much of the Reef area was still essentially undeveloped. This factor diminished substantially the burden that would have to be borne as a new regulatory regime evolves in the Florida keys.



*Appendix C*  
**Program Comparison—Sanctuaries and Estuaries\***

	<u>Estuarine Sanctuaries</u>	<u>Marine Sanctuaries</u>
Authorizing legislation	Coastal Zone Management Act Sec. 315 National Estuarine Reserve Research System	Marine Protection, Research, Sanctuaries Act
Date of Authorization	1972	1972
Legislative purpose	To preserve representative estuarine areas so they may provide long-term scientific & educational value	<p>To preserve or restore areas for their conservation, recreation, ecology, or esthetics</p> <p>To identify areas of the marine environment of special national significance due to the resource or human-use values;</p> <p>To provide authority for comprehensive and coordi- nated conservation &amp; management of these marine areas that will complement existing regulatory authorities;</p> <p>To support, promote, and coordinate scientific research on, and monitoring of these marine areas</p> <p>To enhance public awareness, understanding, appreciation, and wise use of the marine environment</p> <p>To facilitate, to the extent compatible with the primary objective of resource protection, all public &amp; private uses of the resources of these marine areas not prohibited pursuant to other authorities</p>
Who designates?	The Secretary of Commerce AFTER the Governor nominates the area	The Secretary of Commerce, AFTER consultation with the Committee on Merchant Marine & Fisheries of the House of Reps.; the Committee on Commerce, Science, and Transportation of the Senate; Secretaries of State, Defense, the Interior, Transportation; the Administrator; the heads of other interested Federal agencies; the responsible officials or relevant officials or relevant agency heads of the appropriate State & local government entities, including CZM agencies, that will be or are affected by establishment; the appropriate officials of any Regional Fishery Manage- ment Council affected by the proposed designation; other interested persons.

\* Source: G.C. and  
G.M. Ray, 1990

## Designation process

The Secretary shall issue notice in *Federal Register*, in newspaper. It will submit to Committee on Merchant Marine & Fisheries & the Committee on Commerce, Science, and Transportation of the Senate

## Habitat type

Estuarine ecosystem

Ocean waters lying within territorial limits of any State or superjacent to the subsoil. And the seabed within the seaward boundary of a coastal state where the water ebbs and flows. And those waters as far seaward as the outer Continental Shelf as defined in the Convention of the Continental Shelf. And including Great Lakes and its connecting waters.

## Legislative Criteria for designation

Representative estuarine ecosystems suitable for long-term research and contributes to biogeographical & typological balance of the System

National significance due to its resources, culture, or human use values

The law of coastal state provides long-term protection for reserve resources to ensure stable environment for research

Where existing State & Federal authorities are inadequate to insure coordinated & comprehensive conservation & management of the area, including resource protection, scientific research, protection, & public education.

That designation will serve to enhance public awareness & understanding of estuarine areas & provide suitable opportunities for public education & interpretation

Natural resource & ecological qualities, including contributions to biological diversity, maintenance of ecosystem structure, maintenance of ecologically or commercially important or threatened species or species assemblages, & biogeographic representation of the site

The state has complied with requirements of any regulation issued by the Secretary to implement this section

Historical, cultural, archaeological or paleontological significance

Present and potential uses of area that depend on maintenance of area's resources, including commercial & recreational fishing, subsistence uses, other commercial & recreational activities, & research & education

Present and potential activities that may adversely affect the factors identified above.

Existing State and Federal regulatory & management authorities applicable to the area and the adequacy of those authorities to fulfill the purposes & policies of the title

The manageability of the area, including such factors as its size, its ability to be identified as a discrete ecological unit with definable boundaries, its accessibility, & its suitability for monitoring & enforcement activities



		Public benefits to be derived from sanctuary status, with emphasis on the benefits of long-term protection of nationally significant resources, vital habitats, & resources which generate tourism
		Negative impacts produced by management restrictions on income-generating activities such as living and nonliving resources development
		Socioeconomic effects of sanctuary designation
Legislative Research Guidelines	Provides guidelines for research & for promotion and coordination of research	Nonexistent
Legislative funding	Based on 50/50 match between State and Federal Gov. for acquisition, development, & operation.	Entirely Federal
	The amount of financial assistance for acquisition of lands & waters, or interests therein, for any one national estuarine sanctuary may not exceed an amount equal to 50% of the costs of the lands, waters, and interests therein or \$4,000,000.00, whichever amount is less.	
	The amount of financial assistance for acquisition of lands & waters, or interests therein, for any one national estuarine reserve may not exceed an amount equal to 50 % of costs incurred to achieve described purposes	
OPERATIONAL EXPENDITURES for each site for 1990	All = \$70,000.00/year	Channel Islands ..... \$506,000.00 Key Largo ..... 716,000.00 Gulf Parallones ..... 445,181.00 Looe Key ..... 445,000.00 Gray's Reef ..... 162,000.00 Monitor ..... 125,000.00 Fagatele Bay ..... 120,000.00 Cordell Bank ..... 9,000.00
FUNDS/SITE		
1988	\$150,000.00	\$260,000.00 ratio = 1/58
1989	\$132,000.00	\$139,000.00 = 1/95
1990(est)	\$145,000.00	\$173,000.00 = 1/84
1991(est)	\$134,000.00	\$184,000.00 = 1/69

Legislated evaluation  
of performance

The Secretary shall periodically evaluate the operation & management of each national estuarine reserve. Includes education & interpretative activities, & research being conducted within the reserve.

If evaluation reveals the operation & management of the reserve is deficient or the research conducted is not consistent with research guidelines described, the Secretary may suspend eligibility of that reserve for financial assistance until deficiency or inconsistency is remedied.

**REPORTING**

Coastal Zone Management Report for two consecutive fiscal years, April 1 following the close of the biennial

The Secretary shall include in the report information on new designations, expansion of existing reserves, status of research program, and summary of the evaluations made

Resource Assessment Report. The Secretary of Commerce shall draft a resource assessment (as part of EIS) documenting present & potential uses of the area, including commercial & recreational fishing, research and education, minerals & energy development, subsistence uses, & other commercial & recreational uses.

The Secretary, in consultation with the Secretary of Interior, shall draft a resource assessment section for the report regarding any commercial or recreational resource uses in the area under consideration that are subject to primary jurisdiction of Dept. of Interior.

**Program management**

Marine & Estuarine Management Division

Marine & Estuarine Management Division

**Program Planning**

Document is non-existent

Program Development Plan, 1982

**Program Research Purposes**

Defined

Not defined.

**STAFF (number)  
Headquarters (for both)**

1988  
1989  
1990

17  
25  
30

Existing (May):  
Division Chief's Office.

Tech. Proj. Mgt.

Atl. & Great Lakes.

Gulf & Caribbean.

3 (Chief, Secretary, Program Specialist)  
7 (Branch Chief, Typist, Mar. Archaeo. Res. Proj. Manager, Res. Prog. Spec., Edu. Proj. Manager, Edu. Prog. Spec.)

7 (Reg. manager, Sec., Sen. Proj. Manager, Prog. managers=4)

4 (Reg. manager, Sen. Proj. manager, Prog. Spec. Biol)

	Pacific..	6 (Reg. manager, Typist, Sen. Proj. Manager, Prog. Spec=3)
1991		32
On-site NOAA paid		
1988	0	7
1989	0	9
1990	0	20
1991(est)	0	35
On-site Non-NOAA paid		
1988	65	17
1989	70	18
1990	75	20
1991(est)	80	18
Number of designated sites		
1988	17	7
1989	18	8
1990	19	8
1991(est)	21/21	12
Program MISSION	Non-existent Its purpose is to create natural field labs in which to gather data & make studies of the natural & human processes occurring in estuaries.	Establishment of a system of national marine sanctuaries based on identification, and comprehensive management of special marine areas for the long-term benefit & enjoyment of the public
Program GOALS	Preservation of estuarine habitat, including endangered species & wildlife	Enhance resource protection through the implementation of a comprehensive, long-term management plan tailored to the specific resources;  Promote & coordinate research to expand scientific knowledge of significant marine resources & improve management decision-making  Enhance public awareness, understanding, and wise use of the marine environment through public interpretive & recreational programs  Provide for optimum compatible public & private use of special marine areas
INITIATE State designation	State	Site Evaluation List

NUMBER & YEAR OF  
DESIGNATED SITES

1972	0	0
1973	0	0
1974	1	0
1975	0	2
1976	2	0
1977	0	0
1978	1	0
1979	1	0
1980	4	1
1981	2	3
1982	3	0
1983	0	0
1984	1	0
1985	0	0
1986	1	1
1987	0	0
1988	1	0
1989	1	1

TOTAL - Square kilometers

1,025.8 km<sup>2</sup>7,047 km<sup>2</sup>

Time, to designate

30 months

## FUNDING

(in thousands)

## Estuarine Sanctuaries

## Marine Sanctuaries

	Authorized	Approp.	Spent	Authorized	Approp.	Spent
1972	n.a.	n.a.	n.a.	\$10,000	0	0
1973	na	na	na	\$10,000	0	0
1974	\$9,000	\$4,000	\$ 324	\$10,000	0	NOAA
1975	\$9,000	0	\$1,500	\$10,000	0	NOAA
1976	\$9,000	0	\$800	\$ 6,200	0	NOAA
1977	\$9,000	\$1,500	\$2,450	\$500	0	NOAA
1978	\$9,000	\$300	\$300	\$500	0	NOAA
1979	\$9,000	\$3,000	\$1,941	\$500	\$500	\$49
1980	\$9,000	\$3,000	\$4,010	\$ 1,750	\$ 1,750	\$176
1981	\$9,000	\$3,000	\$2,077	\$ 2,250	\$ 2,250	\$1,983
1982	\$9,000	\$2,000	\$2,948	\$ 2,250	\$ 2,250	\$1,625
1983	\$9,000	\$2,930	\$2,511	\$ 2,250	\$ 2,250	\$1,786
1984	\$9,000	\$2,930	\$2,254	\$ 2,264	\$ 2,264	\$1,880
1985	\$9,000	\$2,930	\$4,542	\$ 3,000	\$ 2,982	\$2,146
1986	\$2,500	\$2,059	\$2,165	\$ 3,300	\$ 2,750	\$1,896
1987	\$3,800	\$2,859	\$2,944	\$ 3,500	\$ 2,796	\$2,144
1988	\$4,500	\$2,859	\$2,907.8	\$ 3,900	\$ 2,620	\$2,728
1989	\$5,000	\$2,790	\$2,894.6	\$ 4,250	\$ 2,529	\$2,336
1990	\$5,500	\$3,490	\$3,490	\$ 4,900	\$ 3,122	\$3,795

## Appendix D

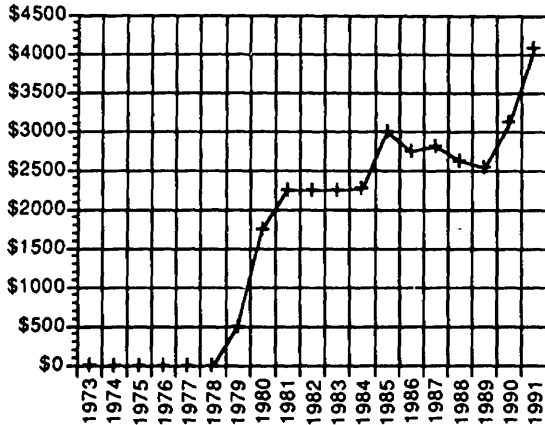
### *Programs at Existing National Marine Sanctuaries*

The nature of the existing program at the sanctuaries in existence as of the end of 1990 may be briefly described as follows:

#### *Budget*

For several years after the program was authorized, the marine sanctuaries program had no budget at all—what little activity that took place was paid for from general NOAA funds. Beginning in 1979, a line item was included in the NOAA budget for marine sanctuary programs. That authorized amount increased in the ensuing years to a level slightly in excess of \$4 million for the current fiscal year.

The budget for the program, drawn as a line chart, appears as follows:



This chart still does not tell the entire story. Some of the program's costs are covered by salaries paid to NOAA commissioned officers, which come from a different location in the budget. Also, cooperative arrangements with state agencies are not reflected in this budget.

#### *Activities at individual sanctuaries*

The chart on the next page represents NOAA's indication of activities conducted at the sanctuaries currently in the system. Every activity marked with a checkmark is said to take place within the sanctuary indicated. The chart does not indicate the level of activity involved, which may range from a full-time task force committed to the element, or may merely involve part-time or volunteer actions.

# Programs at Existing National marine Sanctuaries

Sanctuary activities	Channel Islands	Cordell Bank	Fagatete Bay	Gray's Reef	Gulf of Farallones	Key Largo	Loose Key	Monitor
Research	✓		✓	✓	✓	✓	✓	✓
Education								
Schools	✓		✓	✓	✓	✓	✓	✓
Community outreach	✓		✓	✓	✓	✓	✓	✓
Recreation	✓			✓		✓	✓	
Enforcement								
Enforcement capabilities	✓		✓	✓		✓	✓	✓
Activities regulated								
Fishing-commercial			✓	✓		✓	✓	✓
Fishing-recreational			✓	✓		✓	✓	✓
Shipping			✓		✓	✓	✓	
Diving						✓	✓	✓
Anchoring			✓			✓	✓	✓
Mineral extraction	✓	✓		✓	✓	✓	✓	✓
Removal of flora or fauna	✓	✓	✓	✓	✓	✓	✓	✓
Discharges	✓	✓	✓	✓	✓	✓	✓	✓
Permit program	✓	✓	✓		✓	✓	✓	✓
Cooperative agreements								
Federal agencies	✓		✓			✓	✓	✓
State agencies				✓		✓	✓	✓
Nongovernment organizations	✓				✓			✓
Personnel								
Full-time	3 NOAA/3 NPS	0*	1	3	3	6		2
Part-time	2		1		1	1		
Volunteer	3					4(?)	4(?)	
Non-federal				3		6 DNR	7 DNR	
Land-based facilities	✓			✓	✓	✓	✓	✓
Budget (FY 90) (\$ thousands)	\$478	\$10	\$100	\$164	\$391	\$667	\$446	\$356

\*Farallones Manager is acting Mgr.

## **Appendix E**

### **SAFEGUARDING OCEANS AND WATER RESOURCES**

**Resolutions adopted at  
The Interparliamentary Conference  
on the Global Environment  
Washington, D.C.,**

**May 2, 1990**

**Whereas:**

- The global water cycle is essential to life on earth;
- The scale of human activity has caused changes at every level of this cycle: polluting the earth's water and oceans; endangering human health; shifting the distribution of water by large-scale development; and reducing aquatic life due to pollution, over-harvesting, destruction of habitats, and alteration of ecosystems on local, regional, and global scales;
- The best way to protect water resources is to keep pollution from entering waters;
- High-seas driftnet fishing and other destructive activities disrupt marine life throughout the world's oceans; and
- Short-term economic benefits from exploitation of ocean and water resources deprive future generations, diminish the quality of life, disrupt international stability and global security, and even threaten life itself.

**NOW, therefore, be it resolved that:**

- It is in our interest and that of future generations to address the exploitation of ocean and water resources to prevent further irrevocable damage;
- Ocean and water resources are so important to life that a precautionary approach should be used in allowing discharge of potentially harmful pollutants and wastes. Where there is reason to believe that adverse effects of discharges are likely, even in the face of scientific uncertainty, such discharges should be prohibited;

- Policies must be adopted to stop pollution at its source, with highest priority placed on measures that prevent the creation and dispersal of environmental contaminants;
- Changing our practices requires strengthening and enforcing environmental laws on all levels, based on equity within and between communities, regions and nations and on the requirement that these resources be managed in such a way that they may be bequeathed in a healthy condition;
- Policies must be adopted that ensure future land development in a manner sustainable to the global water cycle;
- Worldwide efforts should be made to develop and share new practices and technologies that minimize pollutants resulting from industrial, agricultural, and other human activities;
- Polluters should pay for the control of pollution and the damages they cause. But this principle is not sufficient to protect oceans and freshwater. It must be accompanied by incentives or fee systems to prevent overuse and exploitation of water resources;
- Expand international programs of research and technology development to protect, manage and restore our marine and freshwater resources. These programs should be internationally funded and should ensure the active participation by developing countries. The need for further research should not be used as an excuse to delay protective actions; and
- Establish strong international systems for monitoring and enforcement of international conventions, treaties, and laws and for the protection of ocean and water resources.

AND in furtherance of these goals, be it resolved that nations join together in international convention and by individual action in an effort to:

- Properly treat and disinfect sewage and sludge before discharge to the water or land or use for agriculture or other purposes;
- Establish policies and programs to:



- minimize the use of toxic substances and the generation of toxic wastes, including bans on certain chemicals that are highly toxic;
- clean up abandoned hazardous waste sites to prevent contamination of surface and ground waters; and
- implement the Basel Convention regarding the international transportation and management of hazardous waste;
- Prohibit ocean dumping of harmful or potentially harmful wastes;
- Limit urban and agricultural runoff containing harmful substances through land use controls and agricultural practices that minimize the use of fertilizers and pesticides and control soil erosion;
- Establish policies to avert and respond to oil spills and regulate offshore drilling discharges by:
  - increasing penalties and liability for spills at the national and international levels;
  - requiring double hulls and bottoms for oil tankers and improving navigation and licensing requirements;
  - establishing an international fund for emergency response and clean up of oil spills and compensation for damages that result from spills to be paid for by a fee on oil from exporting and consuming countries;
- Reduce the use of plastics and properly dispose of plastics and other debris to prevent pollution to beaches, oceans and coastal waters and reduce the threat to marine life;
- Prevent acid rain by promoting energy efficiency and conservation and requiring pollution control technologies on power plants, industry and automobiles;
- Require multilateral development banks to fully assess environmental impacts and to fund projects that are environmentally sustainable;
- Develop and implement comprehensive national and international plans to manage activities in the coastal zone with particular emphasis on the relationship of land use practices to coastal degradation;
- Seek unilateral and cooperative measures to--
  - minimize sea level rise;

- mitigate impacts on low lying countries of increases in sea level that may occur from environmental changes already in motion; and
- direct development away from areas susceptible to sea level rise;
- Protect marine biodiversity and productivity by developing mechanisms to preserve sensitive coastal areas such as wetlands, barrier islands, estuaries, coral reefs, and other critical wildlife habitats;
- Establish regional regimes for effective sustainable management of international fishery resources, and in particular, ban high-seas driftnet fishing;
- Strongly limit the taking of marine mammals by banning commercial whaling and reducing whaling under scientific permit;
- Use freshwater more efficiently through conservation and recycling;
- Establish international agreements for the extraction, use, and protection of fresh waters shared between nations; and
- Protect groundwater resources by limiting withdrawals to sustainable levels and controlling major activities, such as land development and discharges that may contaminate important aquifers.

Be it also resolved that:

- As Antarctica plays a significant role in the global climate system and the aquatic food chain, provide comprehensive and effective protection of the Antarctic ecosystem by:
    - granting Antarctica special protective status as a Land of Science, treaty park, and international wilderness area;
    - extending the current moratorium on mineral exploration and negotiating a total ban on exploration and exploitation of mineral and energy resources in Antarctica;
    - adopting specific environmental protection measures until a comprehensive environmental protection regime can be negotiated to control tourism, waste disposal, oil spills, research activities, and to extend protected areas; and
  - We encourage parliamentarians to return to their respective nations and propose domestic legislation that would prohibit all exploitation of Antarctica until a new convention is signed.
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FINAL: Feb.

# A Future for Marine Sanctuaries

## *Present Status of the U.S. National Marine Sanctuaries Program, with Suggestions for its Future*

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**PURPOSE OF THE REPORT.** This one-month study for NOAA was begun formally in late October 1990. It is being made available to NOAA's Panel of Experts on Marine Sanctuaries for their review. Publication and/or other distribution has not yet been decided.

The Statement of Work for this study includes three objectives:

- 1) A clearer statement of goals and mission for the marine sanctuary program, in light of present day concerns over coastal ocean development and natural resource protection. The potential role of marine sanctuaries in fisheries management, protection of water quality, maintenance of marine biodiversity, and allowance of compatible public and private uses of the natural and historic resources should be specified.
- 2) Criteria for proper size of a sanctuary site, from a management/ecology perspective, including a discussion of core/buffer aspects.
- 3) Criteria for the ultimate size of the U.S. sanctuary system.

There is a long history of discussion of these matters, and much literature exists. This history tells us that "cook-book" tactics and simplistic guidelines can entrap programs into rigidity and obsolescence. Rather, strategies are essential that can lead towards implementation of a flexible, meaningful, and significant National Marine Sanctuary Program capable of addressing future challenges.

We will now take up these three objectives in order. In doing so, we will present thoughts and concepts derived from literature, from discussions with other experienced persons, and from our own experience. The overall objective is to provide material for discussion.

A. Objective 1. A clearer statement of goals and mission for the marine sanctuary program, in light of present day concerns over coastal ocean development and natural resource protection. The potential role of marine sanctuaries in fisheries management, protection of water quality, maintenance of marine biodiversity, and allowance of compatible public and private uses of the natural and historic resources should be specified.

We consider below four aspects for the development of future goals and for a clearer mission statement: (1) justification for marine sanctuaries; (2) the current mission; (3) the future vision; and (4) concept clarification. We do not consider the examination of such complex matters as fisheries management, etc., as contained in the second half of this objective, to be possible within the time available for this study (see Program "Fit," below).

1. Justification for marine sanctuaries. National Marine Sanctuaries *uniquely* can:

a. Fulfill a *perceived need*. Sanctuaries focus public attention on valued ocean organisms and environments and foster conservation of resources. Symbolically, they take into account the concerns of citizens who recognize that sanctuaries are established to protect marine resources. And because symbols can be persuasive, they can facilitate interagency cooperation to reach common goals.

b. Protect *biological and ecological diversity*. A system of marine sanctuaries is more than the sum of the management that each sanctuary carries out. It must be emphasized that only through development of a nationally representative, hierarchical "system" can protection of biodiversity be advanced.

c. Provide *area-specific management*. Sanctuaries represent the legal teeth for protection of coastal/marine ecosystems and they enhance the recognition of resource-use limitations. Therefore, their existence can catalyze the reconciliation of conflicts and rationalize management in surrounding ocean/coastal areas. Legal delineation of ocean boundaries allows protection of included resources dependent upon particular geographical areas, restricting detrimental uses and forcing agencies to implement their legislative responsibilities.

d. Provide *sites for research, monitoring, and education*. Sanctuaries can become "observatories" in which to monitor processes and populations within coastal waters. As centers for basic research, they can address local needs and extend to problems related to global change. The education role is indivisible from this research and monitoring role. However, to fulfill this role, sanctuaries must be scientifically selected and delineated.

e. Become "*model*" *demonstration areas* for "how to" compatibly and sustainably use the resources of the coasts and seas. The relationship with fisheries and other commercial and sport industries is paramount in this regard. For example, sanctuaries can enhance fisheries by providing "replenishment areas". Also, sanctuaries can help stimulate local economies by signalling values that will attract public interest and revenue, and by providing services for use industries -- for example, recreation.

f. Call attention to our seafaring history by protection of maritime cultural sites. [This subject is beyond the scope of this Report, and needs to be addressed in detail separately.]

Agreement on the need for marine resource protection, especially living resources, is rapidly spreading, due in part to wide press coverage of serious problems related to marine pollution, fisheries, and coastal development. However, during their history sanctuaries have mostly been symbolic in signalling that the U.S. government cares about its coastal waters, thus filling a perceived need. The justification for marine sanctuaries needs to be made more clear to user groups, including those, such as fishermen, who interpret sanctuaries as threats to their livelihood. Thus, one important challenge lies in transferring perceived needs into management reality.

2. The current mission. NMSP's legislative mandate was visionary at the time the basic bill was enacted. The legislation has been amended, but the mission still is to identify, select and designate those areas of the marine environment that have resource protection and human use values, and that are under threat and have potential for management. As the mission has evolved, it has become clear that consideration should be made of the area's natural resources, ecosystem structure, cultural values, subsistence uses, and biogeographic representation. Designation, in those terms, should result in protection and use to sustain conservation, recreational, ecological, historical, research, educational, or esthetics values. In total, the designated areas should contribute to a system of nationally significant and ecologically representative marine areas.

This mission has only partially been met during the eighteen-year history of the program. For a number of reasons, only eight national marine sanctuaries have been designated, with a ninth on an interim basis, and six more in process (Table 1). Present sanctuaries occur in only 5 of the approximately 12 coastal/marine biogeographical regions of the U.S. (Figure 1). Should designation proceed as expected, occurrence will be raised to 7 provinces.

Existing sanctuaries cover a total of a little more than 2,700 nmi<sup>2</sup>, that is 0.07 % of the U.S. EEZ (about 3,700,000 nmi<sup>2</sup>). Presently foreseen growth could raise this coverage by about 700% to perhaps 20,000 nmi<sup>2</sup>. The significance of this growth is difficult to determine. First, there is no "rule of thumb" for coverage that will assure resource protection. Second, the effectiveness of resource protection within sanctuaries can only be determined by detailed site evaluation. For example, representativeness is not assured by the occurrence of a sanctuary within a biogeographic province. Norfolk Canyon cannot be said to represent the Virginian region, as this region includes Chesapeake and Delaware Bays and the New York Bight, a wide shelf, and significant coastal lagoons (Figure 2). The determination of representation of habitats and species within sanctuaries requires detailed analysis.

Despite these caveats, present sanctuaries are significant at least at the local level. Individual sanctuaries can contribute significantly to resource protection and education, and to enhancing public awareness. Nevertheless, one could conclude intuitively that if sanctuaries are in the future to play their potential role in comprehensive resource protection, they should either be much larger, perhaps even regional in scope, or comprise a system of a much greater number of smaller areas. In the former case, they might take

account of the Large Marine Ecosystem (LME) concept; the Florida Keys Sanctuary and present sanctuaries of the Oregonian and Californian provinces, if combined, approach this goal. Alternatively, they might include a large number of "core" critical habitats, such as Looe Key.

3. **The Future Vision.** The program's *future vision* must be distinguished from its current *mission*, as stated in the Program Development Plan. Even though the present mission has only partly been met, the future vision for the NMSP should be expanded to lead the nation in ocean protection and management needs, even contributing to the much-needed evolution of a national ocean policy.

This is particularly pertinent in order to address the new challenges of the 1990s and beyond, which we suggest become program goals and which are:

- **protection of biodiversity.** The U. S. Congress Office of Technology Assessment in 1987 initiated policy debate on this subject and defined biodiversity to include ecosystem diversity, species diversity, and genetic diversity. The International Union of Biological Sciences (IUBS), with companion international organizations, is mounting a major program on "Ecosystem Function of Biological Diversity." Also, the Ecological Society of America is making biodiversity one of their major goals for research.

- **monitoring of coastal-ocean global change.** The U.S. Committee on Earth Sciences has published plans for "The U.S. Global Change Research Program". This will be coordinated with The International Geosphere-Biosphere Programme of the International Council of Scientific Unions (ICSU), of which IUBS is a part.

- **achieving sustainability.** The World Conservation Union (formerly the International Union for Conservation of Nature --IUCN), with UNEP and WWF, published in 1990 a Second Draft of "Caring for the World -- A Strategy for Sustainability". "Sustainability" has two meanings: sustaining natural systems and our sustainable use of them. This is perhaps the most difficult of these three challenges, as it involves a combination of natural and social science and a great deal of political will.

These three challenges will be the major subjects of the United Nations intergovernmental Conference on Environment and Development to be held in Brazil in 1992. Several sectors of the U.S. Government are at work in preparation for this Conference, which surely will affect international and national environmental policy. For each of these three important subjects, important roles are suggested for protected areas. The NMSP can play a strong role only if its efforts are well coordinated and if government-wide coordination is evident.

Establishing linkages among these three challenges is essential. It should be apparent that if each of the three were to be addressed independently, the result would be three quite different arrays of sanctuaries, research sites, or managed-use areas. For example, if sanctuaries were to be established to represent only major habitats within biogeographic provinces, the result would not satisfy the role of monitoring for global change, nor for

LME fishery management. Clearly, the task is to fulfill these challenges concurrently and this will require new procedures for site selection.

Many examples of how marine sanctuaries could develop a more meaningful future role could be given. We will present only two alternative "visions" at opposite ends of the spectrum of scale.

2. *Core refugia*. This "critical habitat" concept is currently undergoing examination rather widely in protected area circles. The related concept of "harvest refugia" is the subject of at least two symposia during 1991. These symposia will examine "critical habitat" for species assemblages of value to humans. Equally important is strict protection of biodiversity. Of particular importance for harvest refugia is assurance of productivity so that fisheries or other uses in surrounding areas can be enhanced.

This vision may be termed "bottom up" in that an indeterminate number of small, discrete areas is "set aside" and managed and monitored in rather traditional ways. Core area protection may or may not involve management of surrounding areas, and zoning for multiple use may or may not be implemented.

b. *Regional Management Areas*. These may be said to provide a "safety net for the marine environment." This is a large-scale, "top-down" concept, involving no less than a combination of strict core protection with regional sustainable-use management. To institute this vision, "sanctuaries" would necessarily have to cover significant parts of entire biotic provinces (here, the term "sanctuary" becomes a misnomer).

In this vision, a discrete number of very large areas of regional dimension is involved. As for (a), one or more cores are also established, but "buffer" areas (also termed "zones of managed use") are also established to focus attention on core protection. The Man and the Biosphere (MAB) "biosphere reserve" concept has often been cited as a model for marine sanctuary design, and that concept is of particular relevance here. Multiple use by humans is inherent and research and monitoring are critical components. UNEP's Regional Seas Programme and the LME paradigm are applicable here.

In sum, the current and proposed marine sanctuaries are potentially of both types. For example Looe Key is a typical type (a), whereas the Florida Keys Sanctuary, consisting of an entire biogeographic province, should be managed as a regional area (type b). This presents a strategic problem for NMSP in terms of both budget and management. That is, there appears to be little question that the Program could further develop many additional core refugia within its current mission and limited resources, but there is considerable uncertainty about its ability to manage a large regional area. In any case, it is clear that the current Site Evaluation List (SEL) and the methods by which it was derived are out of date.

4. *Concept clarification*. The legislation contains numerous vaguely stated concepts that require clarification before the vision of marine sanctuaries can become a new mission statement. Only through intensive dialogue and site evaluation can these concepts be resolved into programmatic realities. We will raise questions, rather than attempt to provide answers, about the four most critical of them below:

a. *Resource protection.* The fundamental goal of resource protection is subject to broad interpretation. According to IUCN guidelines, "protection includes a range from "strict" to "multiple use." Thus, is it the purpose of management to protect "the resource," the habitat, or the ecosystem for human use, resource replenishment, or to maintain an ecosystem's natural productivity or diversity? How are "resources" to be defined? Is resource protection the fundamental goal in every sanctuary or can compatible use, restoration, research, and education all be fundamental goals? Is a "lock-out" inferred for long-term protection, or is short-term protection the goal in order to allow for multiple uses and to mitigate between competing uses?

b. *National significance.* As so little is known about marine resource protection, can a sanctuary be said to be nationally significant because it represents a demonstration of resource protection and sustainable use? Or are other criteria involved? One possible criterion is sometimes uniqueness -- that is, the area or resource to be protected is "one of a kind" and, therefore, of high perceived value. However, the factor of "perceived value" makes national significance difficult to determine. Ecosystems and habitats may have regional significance within biotic provinces, but their national significance may always be debatable. From the sanctuary point of view, one might define "national significance" as: (a) a resource use-protection model for other sites to replicate, i.e., for sustained use; (b) a system of sites that significantly protects diverse national-ocean resources; (c) a coordinated site system in which to monitor the health and well being of the nation's coastal waters and resources.

c. *Representativeness.* What might a sanctuary represent -- the region, the habitat, the resources, or management of human impacts? On what scale should protection be focused: on the species, habitat, system, or cultural/jurisdictional/managerial boundaries? Should sanctuary size and number represent ecosystem properties, resource dynamics, degree of threat, human manageability or combinations of these? Or, in the last analysis, will pragmatism rule -- that is, will the size and complexity of the NMSP be ruled by what can the program can manage, given its capabilities and likely level of support? Answers to these questions require, at the very least, strategic analytic procedures and decision-making.

d. *Sustainability.* This concept is implied in legislation via "multiple use." But does this imply a temporal-spatial separation of uses or many uses in one geographical area competing for the same resource? At what point does multiple use begin to threaten the resource? How can management plans be promoted to carry out the goal of the sanctuary and incorporate core, buffer, and transitional areas in which to protect, conserve and use valued areas for multiple use management? What is meant by managing for sustainable use: sustaining the resource, the habitat, productivity or diversity? As mentioned above, this is a difficult subject, about which there has been, and continues to be, much discussion and rhetoric. Any future vision must wrestle with this contentious subject in considerable detail at both the programmatic and individual sanctuary levels.

**B. Objective 2.** Criteria for proper size of a sanctuary site, from a management/ecology perspective, including a discussion of core/buffer aspects.



This objective includes several issues. A large body of literature exists on "criteria" for site identification and selection. Very few efforts have been undertaken to determine "proper size" because *there is no proper size* for sanctuaries taken *inter alia*. However, there are guidelines for determining size in specific cases and there is extensive dialogue on core-buffer concepts.

Criteria for identifying and selecting sites generally follow those that have been in use by protected area programs world-wide (e.g., by IUCN). Criteria for coastal and marine biosphere reserves have been developed by the U. S. Biosphere Reserve Directorate of the U. S. Man and the Biosphere Program (MAB) and these have been largely adopted already by NMSP. These criteria are intended to guide identification and selection of those areas with both natural resource and human use values, that exhibit impacts (threats), and that meet management needs.

Criteria are difficult, if not impossible, to determine in the absence of a clear mission statement. However, some principles may be given.

1. **Sanctuary Design.** A sanctuary should be designed around the primary or *operational* objective for which it was designated – that is, the kinds of resources to be protected, the *kinds* of ecosystems involved, the *kinds* of existing and potential uses and of existing and potential threats, and the *kind* of management that meets the area's conditions.

For example, the general concept of "core refugia" applies to specific resources in which non-living resources may be held for future use, and living resources are allowed to replenish themselves. "Parks" are designated primarily for conservation, education, and recreation (e.g., Looe Key). Research and monitoring are best conducted in areas with some form of control, as "observatories."

The biosphere reserve concept probably best fits the goals of a national marine sanctuary. Core areas should protect the valued resources and be strictly controlled. Buffer areas – i.e., zones of managed use – should surround the core areas so that use conforms with the recognition of how it may affect the core resource. A so-called "transition zone" forms a bridge to developed areas. Biosphere reserves are, by definition, multiple use areas. They are also the only protected area type that explicitly includes human activities. The biosphere reserve concept is simple on paper, but complex in its application to actual sites. The key lies in the development of specific "model" sites.

The multiple use concept is shared both by biosphere reserves and marine sanctuaries. There are three forms of multiple use: *compatible, zonal and temporal*. The compatible type involves determining, within a management area, which uses are not damaging *inter alia*. The zonal type separates incompatible uses in space, and great care is taken to avoid ecologically damaging effects from one area to another. The temporal type is illustrated by the case of migratory species such as whales which may be present in the area for only a portion of the time; for them, certain activities may need to be curtailed only part of the year.

(b) **Sanctuary Size.** The size of a marine sanctuary should reflect ecosystem properties and the degree of human threat. A small, discrete core habitat next to a metropolis may require a large area in which to buffer the impact of pollutants. On the

other hand, a large or small habitat in the open ocean may require only a limited buffer against impact.

Defining sanctuary size should be based on ecosystem properties, but this can be difficult due to the nature of ecosystems. A continuum of scales in both time and space is involved in ecosystem dynamics (Figure 3). The scale of measurement lends bias and we must recognize that *the pattern seen as a characteristic of systems is neither a property of the ecosystem nor of the observer, but of the interaction between them*. That is, an ecosystem can be perceived and defined only in an *operational* context — i.e., the goal that defines the management plan (Figure 4). This context is less important for sanctuaries that emphasize mostly education, recreation, or local resource protection, but is vital for biodiversity protection, research, and monitoring.

Ultimately then, sanctuary size must be based on the objective for designating a sanctuary, i.e., the management goal. The ecosystem could be defined according to that objective, and ecosystem use and sustainability can be based on scientific understanding of that ecosystem's ecological and human-use processes. If the management goal is primarily to maintain ecosystem diversity, then the size of the area should be determined by an ecosystem unit of a size within which diversity — according to a specified index — can be maintained, including both its space and time dimensions.

The U.S. Exclusive Economic Zone, including the continental shelf, includes almost four million square nautical miles of ocean space. It can be roughly divided into a dozen or so biogeographic provinces, depending on the system used (Figure 2). Each biotic province could be deemed a regional "ecosystem." LMEs and regional resource use are now being promoted within fisheries agencies and elsewhere. Sanctuaries would fit well into an overall multiple-use LME management strategy. In fact, a visionary sanctuary program could provide a prototype for management of large ocean areas, as is already the case for Australia's Great Barrier Reef Marine Park Authority (GBRMPA), and potentially for the Florida Keys National Marine Sanctuary, which encompasses an entire U. S. biotic province for the first time in the history of the NMSP.

In sum, there is no simple guideline that can determine sanctuary size or design. Both should be defined by the geographical range of the "value" that is accorded priority, and the critical inputs and outputs (processes) that sustain it, as well as the human uses that may conflict with the sustainment of "core" values. Furthermore, boundary determination is almost always a complex matter that can only be resolved through a concentrated effort that integrates ecosystem principles with social sciences.

**3. Technology.** Tools exist for purposes of site selection and evaluation, notably geographic information systems (GIS). *It is important that the NMSP acquire expertise in this arena. It should also take into account the minimal requirements for interpretation of the GIS— i.e., ecosystem theory and dynamics and species natural history.*

Until very recently, sanctuaries have been largely designated *ad hoc*, and in large part, as a result of political consideration. The program's own Site Evaluation List, although it relied upon the opinions of a large body of experts, has not been consistently followed. Nor have selection procedures had the benefit of currently available analytic technology and ecosystem principles—hence their unbalanced distribution at present (Table 1). A more objective method for identifying and designating sites should be developed to

eliminate biases and to provide stronger arguments for protection. The application of GIS technology is suggested, but is also complex. A "sampling" procedure from existing materials (atlases, data banks, etc.) should be used to help: (a) identify ecological units and their included resources on a variety of hierarchical levels and (b) assess human uses and conflicts, both existing and potential. This can take the form of maps, which must be followed by expert interpretation.

Sites identified and evaluated by GIS techniques and interpretations will be of different natures. Some may be excellent science laboratories located in naturally diverse and rich areas, but where recreation and general use is at a low level and where threats are therefore minimal. Other sites may be under different degrees of threat, and so on. Such determinations may require that the program have different kinds of sanctuaries similar to those of the U.S. National Park Service. *This typology should emerge from an analysis of operational requirements, not a priori.*

### C. Objective 3. Criteria for the ultimate size of the U.S. sanctuary system.

Similarly to objective (b), there can be no criteria for "ultimate size." This must be left flexible or it will be self-limiting. In fact, "size," in this context, is ambiguous. Does it imply number of sites, intensity of financial commitment, or inclusivity of multi-agency effort? We believe that two issues are particularly relevant: an hierarchical approach to ecosystems and a high degree of pragmatism and interagency coordination.

1. **Sanctuary number.** Ecological theory tells us that ecosystems and resources are arranged in a nested hierarchy from micro to global scales. This means that sanctuaries and other management units can be of infinite number. A way to avoid this dilemma is to ask: how many sanctuaries can the Program afford to run, many small ones or a few very large ones? The larger the sanctuaries, the fewer the number required to be "significant." Thus, Looe Key cannot be considered significant in protecting Florida Keys resources because of its small size, despite that fact that it is an excellent "model" on a small scale for recreation and education and—to a limited extent—for protection of the reef itself. However, the newly proposed Florida Keys National Marine Sanctuary could become highly significant in all respects.

Also it is important to ask: should each sanctuary meet all the goals of the Act, including multiple use, or should each be managed according to particular needs or significant values, as discussed above? In either case, different sanctuaries will require different use goals and management plans; a consistent focus is required to bring the network of individual sanctuaries together into a collective whole as a "system" with its own collective vision. It should be apparent that a system of sanctuaries has attributes that are collectively quite different from those of individual sanctuaries.

The problem of large-scale multiple use has been addressed almost uniquely by GBRMPA in Australia. The key there is that *an entire regional ecosystem is the management unit*. Multiple use is the objective. Also, an "authority" with over-riding powers exists for most of the included area. These are reasons why GBRMPA has been widely hailed as a world leader in managing a very large ecosystem as a marine protected area. Detailed examination of their approach could form the basis for regional action in U.S. coastal-ocean zones. Ideally, then, only a few regional sanctuaries would be required. This vision has been mentioned above.

2. Program "Fit." The size of the NMSP must be viewed relative to other agencies, as well as to international coordination and collaboration. This involves administrative and program capabilities of a wide variety of agencies and authorities. Objective (1) called for examination of fisheries, water quality, and other matters that require interagency and public cooperation. Unfortunately, resources and time for this project have not been sufficient to allow us to investigate multiple-agency roles. *However, a detailed examination of related agency roles is vital for development of synergistic and catalytic program developments.*

Clearly, fisheries and pollution agencies need to be intimately involved with the NMSP. Of special relevance to resource protection *per se*, the National Park Service has, for more than 50 years, been involved in coastal and marine protected areas; it currently holds 25 areas with coastal-marine components, some of which are very large. For most of these, commercial and sport fishing is managed by the National Park Service itself. In contrast, the NMSP itself does not manage commercial and sport fisheries. Only three of NPS's largest areas cover about the same area as now managed by all eight NMSP sanctuaries—i.e., about 2 700 nmi<sup>2</sup>. Its budget for each of these larger areas is about 25% of the entire NMSP budget.

These facts are intended to exemplify some realities of marine resource protection, and also to show how *a combination of NPS and NMSP areas could represent a very significant accomplishment in resource protection*. Further, there are a number of private groups with which the Program should increasingly be involved, for example The Nature Conservancy, which is the largest land holder outside the Federal Government. *The essential question is: how do all these areas interact, what do they cover together, and how can coordination of roles and activities effectively decrease program size and budgetary requirements?*

On the international scene, some efforts have been made by NMSP to convene workshops and training sessions. Collaboration with other agencies has been limited. International coordination will be essential, for example, in the suggested Beringian "biosphere reserve/marine sanctuary," which has been under informal discussion from the mid-1970s. If this important matter is to be pursued effectively, it will be necessary to coordinate with the National Park Service, the Minerals Management Service, the Department of State, a number of NGOs, and others.

We conclude that despite some impressive achievements, the NMSP has been forced, partly due to lack of resources, to look "inside" each sanctuary — towards designation, funding, and administration — and has not been able sufficiently to address the difficult matter of coordination, except on a local scale. *Thus, there is an urgent need to develop a strategy for interagency and international coordination.*

## MAJOR CONCLUSIONS

### A. A Reexamined Goal

*This Report is intended to raise topics for dialogue.* The NMSP is currently undergoing rapid changes and growth after years in the doldrums. There is some question that this growth is too rapid, making it especially urgent to define the future vision. There is little

question in our minds that this future vision will require both new legislation during reauthorization in 1991 and significant changes with the NMSP.

The difficulty of establishing marine protected areas in poorly known coastal and marine ecosystems is widely acknowledged. Land-based paradigms are only partially workable. Thus, the need for thorough evaluations and a far-sighted mission statement is unescapable. Partly due to recent rapid growth, the NMSP currently suffers from lack of sufficient leadership, support, personnel, expertise, and influence to carry out even its existing statutory mission. That is, the Congress has placed demands on the Program greater than the institution designated to carry them out. The broad mandate makes its current mission uncertain and its relationships to other responsible agencies unclear. One could conclude that presently designated marine sanctuaries are symbols awaiting opportunities. *Nevertheless, what is important to recognize is that marine resource protection would surely suffer without the capability to establish area management, which the NMSP, under current legislation, should evolve to provide.*

An important consideration is the nature of the "program" itself. A "program" implies focus on a mission, as well as a future vision. Moreover, it implies a "system" with connectivity and networking among the elements involved. It implies answers to the following questions. What are the requirements at national, regional, and local levels to make this *networking system* operational? How may basic science be directed towards management problems and what scale (local, regional, national, global) should they address? What *role* can sanctuaries play in global change and biodiversity? Can multiple use occur in marine sanctuaries at the same time that ocean uses continue to grow outside its boundaries? And can sanctuaries continue to protect resources when outside ocean development tends to isolate them like marine aquarium exhibits?

At present, the NMSP has few linkages among designated sanctuaries. The goals identified in the Act are resource protection, the promotion of research, the enhancement of public awareness and the provision of optimal public use. The program has not yet achieved these goals for any sanctuary. Figure 5 provides alternative integrating goals and relates these to specific sanctuary missions in a network of interactions.

## B. Future Planning

1. *Program Guidance.* It would seem advantageous to NMSP to have more expertise at its fingertips. Four suggestions come to mind:

(a) *Coastal-Marine Commission.* This suggestion derives from experience with the Marine Mammal Commission and its unique features. A Commission provides a vehicle for a consultative group that can have a strong scientific base, that acts as a buffer to the public, and that can place agency decision in a relatively unbiased public forum.

(b) *Inter-agency Coordination Committee.* A high level of overall NOAA commitment is essential for inter-agency conservation and management, for example on the outer-continental-shelf and in watershed-to-shelf management planning. Also, international leadership would require such cooperation.

(c) *Intra-Agency Task Force.* An increased role for NMFS, for example, is urgent. Planning and site evaluation and selection tools are best developed within ORCA. These divisions of NOAA, and others, should seek greater cooperative involvement in area-specific management issues.

(d) *Scientific Advisory Committee.* This could be a group of experts that meets on a regular basis to give specific advice. It might best be associated with a Commission, should that group be created.

### C. Strategic Requirements

*We strongly emphasize the need for a thorough review and analysis of resource protection provided by marine sanctuaries, now and into the future.* In order to assure this important role, the following should be subject to extensive studies:

1. **The Mission.** There is an urgent need to develop a clear and visionary, unambiguous mission statement to guide a strong program, specifically related to the existing legislation, but also taking account of the future vision. This new statement should include the three major integrating goals of biodiversity, sustainability, and global change. It should be developed by intensive dialogue, taking into account the issues identified above. This Report and the P... Experts are steps in that direction.

2. **Evaluate Existing Sanctuaries.** The degree to which existing sanctuaries meet management goals is not yet clear. Especially lacking is an assessment of how sanctuaries can meet the goal of resource sustainability and the degree to which NMFS, the states, and the public should be involved in meeting this goal. Area protection *vs.* overall regulatory protection (e.g., standards for water quality) needs to be evaluated so that gaps in protection are better defined in management plans.

3. **Central Office.** The Office's structure, personnel, procedures, and budget require review in order that personnel and their duties can be clarified and enhanced.

4. **Designation and Planning Procedures.** The PDP and SEL form the current basis for activity, but are out of date. These documents need restructuring so as to define clear sets of priorities that can address present and future needs. Of particular importance are better identification and selection procedures, incorporation of GIS technology, and clarification of management planning requirements in light of the new challenges of the 1990s.

5. **Networking and Synergism.** Facilitating mechanisms should be identified to tap opportunities effectively, at little extra cost and so that program activities can be enhanced. This will require a review of legislation. Agencies, in general, have some difficulty with cooperation and enhancement, partly due to their mandates. For example, NOAA ought to determine whether the NMSP should exercise its authority to regulate fishing in sanctuaries and to increase regulatory flexibility. In this case, the need is for greater involvement of fisheries agencies, many of which have long been opposed to sanctuary establishment, to illustrate how sanctuaries can increase or sustain yields.

6. **Complete the System.** A thorough revision of the SEL is necessary to resolve how ecologically scaled representativeness may be achieved — i.e., at regional, local, and inter-regional scales — and to define what a "nationally significant" sanctuary *system* should be. Sanctuaries established on a hierarchy of scales are required to address such issues as sustainable resource use, biodiversity, and global change. This is a challenging scientific question that requires state-of-the-art GIS, modelling, and interpretation.

7. **Research Agenda.** The NMSP, with experience gained from Estuarine Research Reserves and other programs such as the National Park Service, should develop a research agenda that is directed towards conservation and management, but that is also open to basic research. This requires that a *research coordinator at a senior level* be hired to help identify research needs at national and site levels, and to develop a research and monitoring PDP. Efforts should be made to develop projects that can address the major environmental problems of the '90s and that is cognizant of the many on-going programs of NOAA and other agencies, as well as internationally.

8. **Education Agenda.** Similar to the Research Agenda, an Education Agenda would guide educational goals and differentiate between education and public relations. Such an Agenda could determine how best to utilize services that can complement both the Program and local interests.

9. **Coalesce the Marine and Estuarine Programs.** An analysis should be conducted so that recommendations to the Congress for combining certain functions of the MPRSA and the CZMA can be made. These programs both have strong features that can be enhanced via synergism. Some estuarine and marine sanctuaries coexist in an ecological and regional context, especially over wide continental shelves (cf. Figure 2). Management of these can be coordinated and directed toward land/sea ecosystem protection. Coordination could benefit program management, education, and research, as well as simplify management.

10. **Budget and resources.** MEMD budget and personnel-resource deficiencies are striking in comparison with other similar management agencies—e.g., the National Park Service, NMFS, etc., especially in view of the responsibilities assigned to it by the Congress. Personnel are deficient in both numbers and certain essential areas of expertise. At present, the number of sanctuaries that may be designated is limited by the costs of management. A thorough examination of how this restraint can be turned to advantage, by better involvement of other agencies and the public, is urgent.

11. **Expand the Constituency.** NMSP already works with a various array of agencies, depending on the sanctuary and/or issue involved, but the socio-political constituency needs better to be identified. The constituency needs reevaluation and expansion, specifically to include working relationships with other agencies, including research agencies, and with those persons and groups involved in sustainability of resources and restoration of damaged ecosystems. Public participation procedures are important in this respect.

12. **New legislation.** A general solution to many of the problems faced by the NMSP would be adoption of new legislation. One of the urgent needs is for the program *explicitly to have coordinating responsibilities* for the management of identified marine areas. Another is the need for "authority" (as has GBRMPA); perhaps of a regional nature. A

third, is to rename the program by omitting the vague and confusing "sanctuary" title. Fourth is the need for coalescence of the MEMD's marine and estuarine programs, which are unnecessarily duplicative. Most important is to raise the profile of the Program to be equivalent to a full "service." Several other possibilities for the 1991 reauthorization are contained in the above sections of this Report.



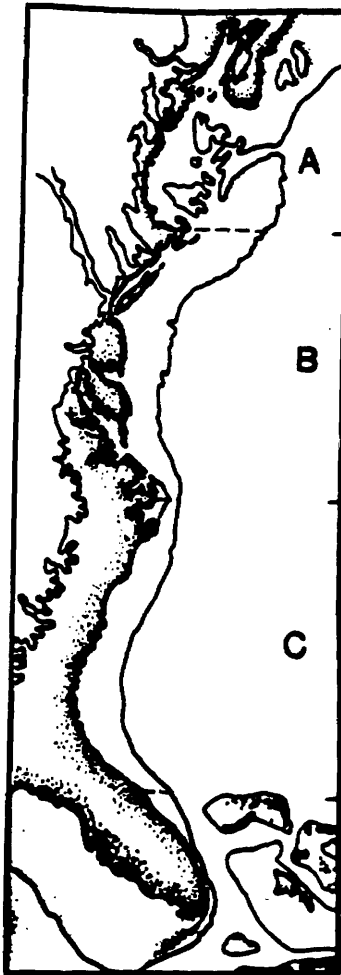
TABLE I

COASTAL MARINE BIOTIC PROVINCES  
(not oceanic)COASTAL MARINE BIOTIC PROVINCES

Sanctuary (date )	1	2	3	4	5	6	7	8	9	10	11	12
<i>Existing</i>												
Monitor ('75)			•									
Key Largo ('75)				•								
Channel Is. ('80)							•					
Gray's Reef ('81)			•									
Gulf Farallones ('81)								•				
Looe Key ('81)				•								
Fagatele Bay ('86)												•
Cordell Bank ('89)								•				
<i>In Process</i>												
Monterey Bay								○				
Stellwagen Bank	○											
Norfolk Canyon		○										
Flower Gardens												
Pacific NW								○				
Hawaii												
<i>Interim</i>												
Florida Keys ('90)												

1. Acadian	5. Louisianuan	9. Sitkan
2. Virginian	6. Vera Cruzan	10. Aleutian
3. Carolinian	7. Californian	11. Arctic/Subarctic
4. West Indian	8. Oregonian	12. Indo-Pacific



FIGURE 2**A. ACADIAN - BOREAL**

1. Ocean-dominated
2. Dissected shelf with basins and canyons
3. Strong tidal mixing
4. Rocky shores; glacial history
5. Narrow coastal plain
6. Small barriers; many islands
7. Few long rivers
8. Small bays, coves, pocket beaches
9. Cool temperatures
10. Influenced by Labrador Current

**B. VIRGINIAN - MID ATLANTIC**

1. Coastal/ocean-integrated
2. Wide, flat shelf with canyons
3. Mixing of coastal and offshore waters
4. Extensive wetlands and lagoons
5. Rolling coastal plain
6. Extensive barrier beaches
7. Extensive river drainages
8. Very large estuaries
9. Variable seasonal temperatures
10. Influenced by Gulf and Labrador currents

**C. CAROLINIAN - SOUTH ATLANTIC**

1. Terrestrial-dominated
2. Wide, flat shelf; no canyons
3. Coastal waters variable and turbid
4. Poorly drained tidal marshes
5. Broad, flat coastal plain
6. Extensive barrier beaches
7. Long, silt-laden rivers
8. Small lagoons and estuaries
9. Warm temperatures
10. Influenced by Gulf Stream waters

*Ref: G. C. Ray & M. G. McCormick-Ray, 1982*

Biogeographic provinces of the U.S. East Coast. The terrestrial margin is approximately at the 100 m. contour (the fall line). The marine boundary is approximately at the 200 m. depth contour (the outer edge of the continental shelf). Thus, land-sea interactions are paramount to determining species' distributions. Estuarine and marine protected areas should be integrated for optimum management of resources.

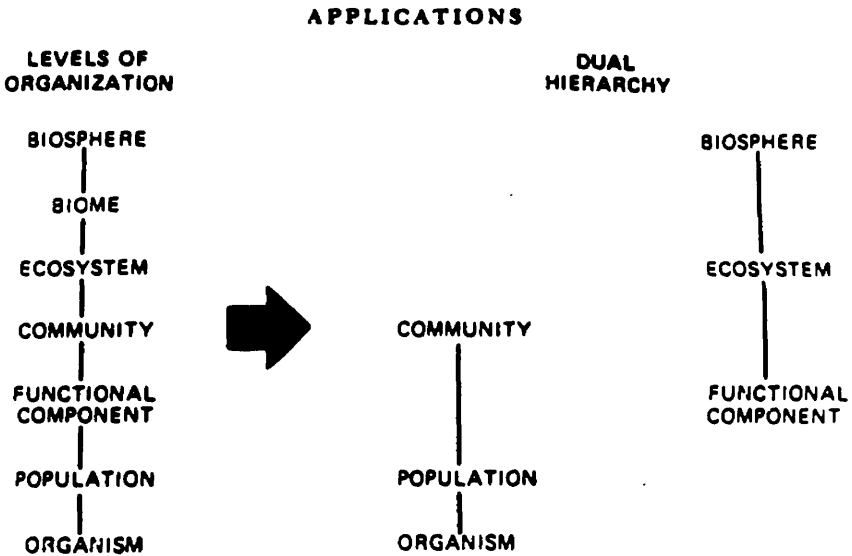
FIGURE 3

Fig. 9.1. The dual hierarchical structure of ecological systems. To the left is shown the typical levels of organization discussed in Chapter 4. To the right the population-community and process-functional approaches are considered as separate hierarchies.

From: R.V. O'Neill et al 1896.

A Hierarchical Concept of Ecosystems.  
Princeton University Press.

Any level may be selected as the focus for marine sanctuary designation. However, this selection will strongly influence the size and other attributes of the sanctuary.

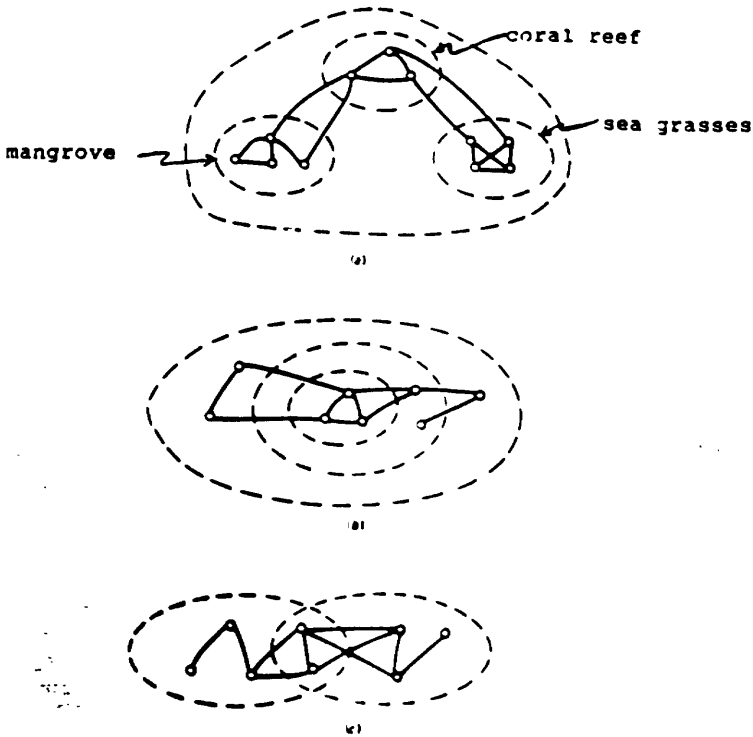
FIGURE 4**HIERARCHIES OF SPECIES**

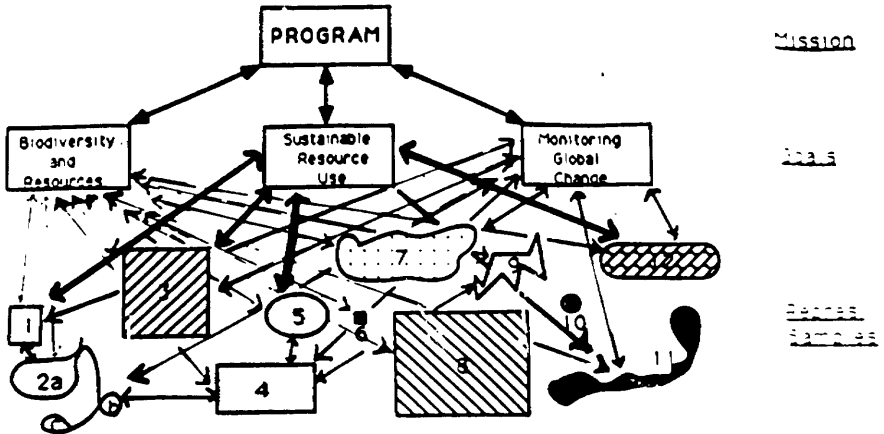
Fig. 7.1. Three potential hierarchical structures for communities. The species (circles) may interact (lines) as though they were organized into independent modules (a), nested into more and more complex associations (b), or developed into overlapping modules (c).

From: O'Neill *et al* 1986. A Hierarchical Concept of Ecosystems. Princeton University Press.

The size of a sanctuary is determined in the top case by whether reefs, mangroves, and sea grasses are to be included together, separately, or in any combination. In each case, different species assemblages will be selected for protection.

FIGURE 5

## A Marine Sanctuary "Vision" for the Future



## SCENARIO:

SANCTUARIES 1-12 contain representative samples of each of the 12 U.S. biogeographic provinces. The size and shape of each sanctuary depend on regional characteristics, uses, threats, and operational values.

EXAMPLE: Sanctuary 6. Flower Gardens. Goal is to protect biodiversity. A detailed management plan spells out how this can be achieved; it is developed with the cooperation of the oil and gas and commercial fishing industries.

EXAMPLE: Sanctuary 11. Florida Keys. Goals are multiple -- to protect biodiversity, to provide for sustainable use, and to monitor global change, especially with regard to coral reefs. A detailed management plan is evolved through public participation, interagency cooperation, and industry involvement.

THE NETWORK: All sanctuaries contribute to a network, which defines the sanctuary program. Those sanctuaries with similar problems, solutions, research, education, public relations, etc., interact to exchange information and link with the central office. The central office synthesizes the information and also communicates with NOAA, the Congress, and other programs internationally.

FOLLOWUP QUESTIONS FOR TRUDY COXE  
BEFORE THE SUBCOMMITTEE ON FISHERIES AND WILDLIFE  
CONSERVATION AND THE ENVIRONMENT  
AND THE SUBCOMMITTEE ON OCEANOGRAPHY, GREAT  
LAKES AND THE OUTER CONTINENTAL SHELF  
MERCHANT MARINE AND FISHERIES COMMITTEE  
U. S. HOUSE OF REPRESENTATIVES  
NOVEMBER 7, 1991

1. As you know, I have recently introduced legislation to establish a NOAA Ocean and Coastal Conservation Foundation. I have included a copy of the proposed legislation for your information. It is clear that we do not have the Federal funds for the Sanctuaries Program to do its job adequately, and this approach may alleviate the problem. There may be better approaches as well. Do you have any advice on the foundation proposal or on alternatives that we might want to pursue? Do you have any recommendations on how to simplify the designation process to free up resources currently consumed by that lengthy process?

With regard to your legislation (H.R. 3694), NOAA opposes the concept of a Foundation for one selected program of the many NOAA programs which treat ocean and coastal areas and their resources, and the interaction between the oceans and atmosphere, in a holistic manner. We are presently reviewing various bills, including H.R. 3694, to determine which is best suited to NOAA's programs and goals.

The Administration is considering amendments to Title III which we believe will simplify the lengthy designation process and save time and money. Among the changes under consideration are elimination of redundant documents and information requests and strengthened and clarified mechanisms for coordination by the Program with potentially affected parties.

2. When I hear that about half of the people who work on the Sanctuaries Program are located in Washington, I worry. I also note that the Review team recommended that more decision-making be placed in the hands of sanctuary managers. I understand that tough priorities must be set which balance the need for good sanctuary management with the pressure of designating additional sanctuaries. Does NOAA have any plans to decrease the size of its Washington-based staff or to allow sanctuary managers more autonomy? Can we get more resources out of Washington and into the field.

Given the number of new site designations and studies required by the 1988 reauthorization, we believe the program has made a reasonable balance between staffing sites and working on new designations. In terms of monetary resources, approximately 75 percent of our FY 1991 funds were allocated for use at field sites. In terms of staffing, there are 25 headquarters staff and approximately 55 field staff supported by sanctuary appropriations. This includes NOAA-funded State and contract employees working in sanctuaries who are not counted in NOAA budget figures as staff. Our goal is to support on-site operations as fully as possible while maintaining the Washington, D.C.-based staff needed to complete designations as quickly as possible and perform headquarters-level administrative and technical functions such as contract and grant processing and national research and education planning and coordination.

We have increased the operating capability of our field sites since the last reauthorization. The Fagatele Bay, Gray's Reef, and MONITOR sanctuaries were provided with their first on-site personnel since their designations. Staff levels have increased at the Channel Islands, the Gulf of the Farallones, Key Largo and Looe Key sanctuaries. Additionally, field-based staff are playing significant roles in the designation of new sanctuaries in Florida, Hawaii, Michigan and Washington. As staff has been provided to the field, we have begun reassignment of responsibilities. For example, we recently delegated authority for research and education permits to sanctuary managers. By this change we are providing better service to permit applicants, and freeing up time for our limited headquarters staff for more appropriate functions.

3. I remain extremely concerned about the difference between NOAA's projected budget for the Stellwagen sanctuary of more than \$500,000 and CMC's report that less than \$100,000 will be available for the 1992 budget for Stellwagen. If CMC's projection is indeed correct, I would like to know in what Stellwagen-related program areas NOAA intends to make the necessary cuts.

In 1992, NOAA will be opening the main Stellwagen Bank NMS office in Massachusetts. A manager and administrative assistant will be hired in 1992. Additional education, research and enforcement staff will be added in Fiscal Year 1993. Additional local outreach offices will be established in FY 1993 and FY 1994.

4. Finally, I would like to reiterate my request for the recommendations on funding levels for the 1993 budget process from OCRM to NOS, from NOS to NOAA, from NOAA to the Department, and from the Department to OMB.

The President's Fiscal Year 1993 budget request for the Sanctuary Program was submitted on January 29, 1992. The request was \$7.289 million. The internal pre-decisional material is not made available.



## ADDITIONAL QUESTIONS SUBMITTED BY MINORITY STAFF

1. Are you currently drafting reauthorization language for Title III of the Marine Protection, Research and Sanctuaries Act? When will this language be sent to Congress?

The Administration is considering amendments to Title III. Our proposal will be submitted as part of the President's legislative program in early 1992.

2. What changes do you expect to make to streamline the sanctuary designation process?

Three statutes shape the designation process for a national marine sanctuary: title III of the MPRSA, the National Environmental Policy Act, and the Administrative Procedure Act. NOAA's focus will be on amendments to title III which eliminate redundant information requests and documents.

3. National Wildlife Refuges and National Parks are Congressionally designated. Should Marine Sanctuaries also be Congressionally designated, leaving regulation and management plans to NOAA?

We believe the existing National Marine Sanctuary designation process of Secretarial designation with Congressional review is preferable. The existing designation process allows direct public involvement in all aspects of sanctuary designation, including detailed deliberations over boundaries and uses subject to regulation or prohibition, prior to designation. While the legislative hearing process also provides an opportunity for public input on such questions, it cannot provide as much time for direct public involvement as is possible through the National Environmental Policy Act and title III processes.

4. Public law 101-605, designation of the Florida Keys National Marine Sanctuary, required that NOAA provide Congress with a report of anticipated funding needs through 1999. The report that NOAA submitted covers only FY '91 and FY '92? When will the additional funding information be provided?

Additional information on funding needs for the Florida Keys National Marine Sanctuary was transmitted with the President's Fiscal Year 1993 budget. The FY 1993 request for the Sanctuary Program was \$7.289 million.

5. Have you been given any indication from the Commerce Department, OMB, or the White House that more funding will be requested for the National Marine Sanctuaries Program in the future?

The question of the appropriate level of funding for the sanctuary program has been discussed as part of formulation process for the Fiscal Year 1993 budget.

6. Does NOAA plan to put more reliance on the National Ocean Service's Strategic Assessment Branch in completing designation of Marine Sanctuaries?

Both the Office of Ocean and Coastal Resource Management's (OCRM) Sanctuaries and Reserves Division and the Strategic Assessment Branch, Office of Ocean Resources Conservation and Assessment, are part of NOAA's National Ocean Service. As such, they, and other NOAA elements, will continue to work cooperatively in the designation of new sanctuaries.

7. The Navy has recently proposed to conduct underwater detonations within the Florida Keys sanctuary. Would you provide background information on this proposal?

The Navy is not conducting nor is it proposing to conduct underwater detonations within the Florida Keys Sanctuary. This concern has arisen since the designation of the Florida Keys National Marine Sanctuary in an area formerly used by the Navy to conduct underwater explosives tests.

On July 24, 1991 and October 30, 1991, Navy officials met with the appropriate Federal and Florida state agencies to begin discussions and arrange for renewed use of several sites in the Key West area for proposed tests in 1992 and 1993. These sites will specifically avoid the National Marine Sanctuary. Furthermore, Navy officials

also intend to work with the state of Florida to identify test sites that may be more suitable in the long term. In all cases, the Navy will ensure that the proper environmental documentation is in place and that all efforts are made to minimize the environmental impact of the tests.

In summary, the Navy has no plans to test in the Florida Keys National Marine Sanctuary: test sites will be chosen in conference with the state of Florida and local interests, to minimize environmental effects; and documented studies and marine surveys have proven thus far that these tests do not result in significant adverse environmental impact.

8. Do you plan to expand the sanctuaries site evaluation list to cover all biogeographic provinces represented within U.S. waters?

Yes, we are planning to expand the representation of the Site Evaluation List (SEL) of sanctuary candidates to include sites from all marine and coastal biogeographic provinces found within the United States. The 1988 regulations of the National Marine Sanctuary Program, published at 53 FR 43806, require that in preparing a Designation's Determination and Findings the Secretary must consider "... the biogeographic representation of the site" (15 CFR 922.33(b)(1)).

The clear implication is that the national system of marine sanctuaries should be representative of the variety of natural and human use resource values found throughout the different types of ecosystems occurring in the marine and coastal waters of the United States. The existing SEL contains sites from all biogeographic provinces except those surrounding Alaska and Hawaii. This lack of representation makes it impossible for the Program to consider sites for designation from all biogeographic provinces at this time.

The SEL is undergoing a thorough, multi-year review, that will include both scientific and general public participation. During this review we intend to focus on the comprehensive representation of all biogeographic provinces as we select sites to add to the list. A fully representative list is a prerequisite for establishing a national system of sanctuaries that is representative of the significant resources found within our Nation's waters.

9. Do you plan to continue to assign an on-site liaison person during the designation process of each sanctuary? Has this helped speed up the designation process?

Providing on-site liaisons for designation began with development of the two Washington State sites, Olympic Coastal and Northern Puget Sound. Their purpose was to provide a local contact for citizens and agencies to obtain information about the program and the designation process. This effort has been highly successful and we intend to continue it with new designations. We believe having on-site staff ability to respond to questions and attend local meetings has certainly helped reduce misunderstandings about our program, and facilitates the designation process.



# NATIONAL FISHERIES INSTITUTE, INC.

November 19, 1991

Hon. Dennis M. Hertel  
Chairman, Oceanography, Great Lakes  
and the Outer Continental Shelf  
1334 Longworth House Office Building  
Washington D.C. 20515-6230

Dear Chairman Hertel:

This letter responds to your questions concerning marine sanctuaries included in your letter of November 14, 1991.

**1. Are there situations in which fishing should be regulated within marine sanctuaries?**

Yes. Fish stocks often migrate over large ocean areas as marine conditions change. Fishery management plans developed under the Magnuson Act govern harvests throughout the range of stocks and should apply to harvests both outside and inside of marine sanctuaries.

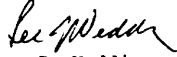
Also, fishery management plans can establish ocean areas in which special harvest restrictions apply. In Alaskan waters, for example, areas are set aside to store crab pots underwater. These areas are closed to trawling. Depending on the circumstances, it might be appropriate to restrict certain fishing operations within areas covered by marine sanctuaries. For example, it would seem appropriate to restrict bottom trawls in areas containing important coral resources. Such restrictions should be developed primarily by the fishery management councils and should be incorporated into fishery management plans.

**2. Do you oppose inclusion of fishery resources within the scope of environmental impact assessment statements developed during the sanctuary designation process?**

No. Exclusion of fishery resources from the scope of environmental assessments would render these assessments meaningless. The term "fishery resources" is defined broadly in the Magnuson Act to mean "any fishery, any stock of fish, any species of fish, and any habitat of fish." The term "fish" also

is defined broadly to mean all plants and animals except marine mammals and birds. Impacts of sanctuary designations on these fishery resources should be assessed.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Lee J. Weddig". The signature is fluid and cursive, with the first name "Lee" being more prominent.

Lee J. Weddig  
Executive Vice President

**Frank M.  
Potter, Jr.**

2040 Lakebreeze Way, Reston, VA 22091

November 19, 1991

Hon. Dennis M. Hertel, Chairman  
Subcommittee on Oceanography, Great Lakes and  
the Outer Continental Shelf  
1334 Longworth Bldg.  
Washington, DC 20515-6230

Dear Mr. Chairman:

In your letter of November 14, you asked that I respond to several questions arising from the hearings held on November 7. I thank you for your continuing interest in and support for the program, and have these responses to your questions:

**1. What are the most critical issues regarding reauthorization of the National Marine Sanctuaries Program?**

Without any doubt, the most critical issue is the level of funding authorized and appropriated for the program. Testimony in the hearings was clear on this point. Unless and until there are sufficient funds to allow even minimum support for the sanctuaries now in place, the program cannot meet the obligations given it by statute.

Our review team suggested that \$30 million would be an adequate budget to provide staffing, education and scientific support for the sanctuaries now in place. That figure did not take into account the need for additional funds to cover the sanctuaries that are soon to come on line: Monterey Bay, Flower Garden Banks, Stellwagen Bank, and Thunder Bay. It might also be noted that one of the existing sanctuaries, Cordell Bank, has no personnel on site at this date. Some have only one or two employees in place. Sanctuaries so understaffed and underfunded scarcely deserve the name.

Assuming that adequate funding is available, a number of other issues must be addressed and resolved.

The program should be elevated and made a centerpiece of the national effort to protect critical environmental resources. In our view, this requires that it be elevated within the agency to Office status. Before now such a step would have made little sense, given the minimal funding available. But assuming adequate—or even bare bones levels—such a step would help force federal and state agencies to give sanctuaries the recognition they deserve, as plans are made for the future use of these waters. Further, if the Department of Commerce remains unpersuaded as to the merits of elevating the program and giving it the resources necessary for its adequate implementation, it might be useful, as our panel suggested, to think about other possible locations for the program, such as the Park Service or EPA.

Our report recommended that the Florida Keys and Monterey Bay sanctuaries are likely to receive concentrated public attention, and that they be made, in effect, the centerpieces of a revitalized sanctuaries program. It seems important to me that this

The Hon. Dennis M. Hertel  
11/19/91

emphasis be reflected in Congressional and Executive Branch treatment of the program. One way of doing so might be line-item funding for these sanctuaries. This, however, could be a sword with more than two edges—its chief disadvantage being that it invites micromanagement by people whose managerial qualifications may not be up to the task.

**2. How much authority does NOAA have to regulate harmful activities outside the boundaries of the marine sanctuary? Do we need to provide additional authority?**

The panel did not explore this issue in any detail. Last year the Congress concluded—I think correctly—that additional authority was needed to deal with water pollution problems in the Florida Keys. Where such authority is clearly needed to accomplish the purpose for which a sanctuary is created, it might be useful to provide it, so long as there are adequate safeguards to ensure that this authority is not misused.

I trust and assume that the Office of the General Counsel at NOAA will be able to give you more specific and helpful advice on this question.

**3. What bottlenecks do you see in the sanctuary designation process?**

There are a number of bottlenecks in the sanctuary designation process, some of them imposed by statute, and some of them self-inflicted by the bureaucratic process.

Over the years, the National Environmental Policy Act has come to assume a role somewhat greater than that contemplated at the time the legislation was enacted. Whether for good or ill, NEPA has come to mean that exhaustive research be done on every conceivable aspect of a proposed federal activity; if it is not exhaustive, it is sent back with instructions to make it so.

When the bill was written, the expectation was not so much that these analyses be definitive as that they disclose the full amount of information upon which the government was basing its proposed action. Certainly if that information was egregiously inadequate, that would be called to the attention of the project's sponsors—in court, if necessary. But somehow, over the years the law has taken on the additional burden that the government had better well know everything that is to be known, and that if it doesn't, all activity should be held up until it does know everything.

I would estimate that, in general, once a project has gone through a reasonably complete examination, some 90% of the information that will ultimately be incorporated into the final statement is known. My own feeling, and I stress that this is entirely personal and not in any sense to be taken as the view of the review panel, is that acquiring the remaining 10% of the missing information will usually take an additional year or more; this delay can be critical. Thus my personal view would be that the agency should move much more quickly in its environmental reviews of a proposed sanctuary, and that this shortened time would work to the benefit of the program.

The statutory requirement that a prospectus of a proposed sanctuary be provided to the Congress may in fact do little to ensure responsibility on the part of the agency, and it certainly increases the burdens of an already tiny staff. Amendment of the enabling legislation to require the transmission of appropriate information in the context of a draft environmental impact statement might accomplish the same objectives while improving the process of developing and publishing relevant information about a proposed project.

The Hon. Dennis M. Hertel  
11/19/91

4. Should other federal agencies be permitted to review and comment on sanctuary draft environmental impact statements prior to their release by NOAA? How much influence should other agencies have in establishing sanctuary regulations?

The interagency review process also imposes severe, and to my mind at least, unnecessary delays in the process as well. I see no problem in allowing—indeed, requiring—other federal agencies to review draft environmental impact statements prior to their release by NOAA. On the other hand, I see no justification whatever for this review process to serve as a barrier to the process moving forward in an expeditious manner.

Agencies frequently adopt review processes that seem glacial in their speed. Once a proposed sanctuary has reached the point of official consideration, few sister agencies within the federal government remain unaware of its existence; I very much doubt that any draft environmental impact statement has ever provoked another agency into the startled realization that something is going on out there. Thus, if an agency has any serious problems with a proposed project, it should have begun considering its response long before the draft EIS shows up on its doorstep.

More often than not, however, this process is used by agencies as a delaying mechanism to halt progress for long periods of time, while they assemble their information or, as is not infrequently the case, extract some watering down of the proposal in exchange for allowing the project to go forward. While I am certainly not insensible to the need for accommodations to be made in the process, I would much prefer that they be made on the merits of the proposal and not as the price for peace.

To deal with this problem, the Congress might instead *require* agencies to respond to draft statements within a fixed period of time, which could be extended only upon the consent of the initiating agency. Failure to respond within that time would be deemed to be assent to the proposal. Careful drafting in the statutory language is important, since OMB will be an important player in the game, and can impose its own rules on the process—not necessarily to the benefit of a strong sanctuary program.

The second part of the question deals with the role of other agencies in establishing sanctuary regulations. My reaction, and I think that of the panel, is that the views of other agencies deserve careful and sympathetic consideration, but that the ultimate judgment call should be that of the agency responsible for managing the sanctuary. Other agencies have their own missions to consider, to be sure, but the health of the ecosystem is not likely to be primary in their plans.

If the sanctuary agency is doing its job, it will consider the various competing needs and reach a decision that accommodates them as far as possible. But in the end, their primary consideration must be for the sanctuary itself; if that is not the case, the term "sanctuary" loses its meaning and the program deserves to be terminated.

I hope that these views will be helpful to you and your colleagues as you proceed with this important legislation. If I, or the members of the panel, can be of any further assistance to you, please say the word.

Sincerely,







# Massachusetts Audubon: North Shore

Endicott Regional Center  
346 Grapevine Road  
Wenham, Massachusetts 01984  
(508) 927-1122 30 October 1991

Congressman Gerry E. Studds, Chairman  
Subcommittee on Fisheries  
and Wildlife Conservation and the Environment  
U.S. House of Representatives  
Room 1334, Longworth House Office Bldg.  
Washington, DC 20515-6230

Dear Congressman Studds,

Regretfully, I must decline your request to speak before the Subcommittee on Oceanography, Great Lakes and the Outer Continental Shelf and the Subcommittee on Fisheries and Wildlife Conservation regarding the reauthorization of Title III of the MPRSA. Massachusetts Audubon: North Shore is the recipient of a Massachusetts Bays Program Mini-Bays five year grant to examine anthropogenic effects within Plum Island Sound (see enclosed). Our first day-long planning meeting with our staff, consultants and the MBP staff is scheduled for Nov 7 and as the project's principle investigator I am obliged to chair the meeting.

I have had an opportunity to review the not-for-profit foundation proposal aimed at augmenting national marine sanctuary programs and initiatives. Massachusetts Audubon: North Shore fully supports the proposal as drafted. It is clear that innovative, long term funding mechanisms must be explored and implemented to guarantee the vitality and the effectiveness of such a nationally important program. The MPRSA, like many other landmark environmental legislation, often is subjected to variable levels of appropriations through time. While federal funds will provide the mortar and stone to shape marine sanctuary programs, a not-for-profit foundation dedicated to providing for long term and consistent protection of our nation's most treasured natural resources will be the lifetime insurance policy.

I am honored by your request and look forward to working together with you and your subcommittee on analogous endeavors in the future. Thank you.

Sincerely,

  
Peg Brady,  
Director

cc: Congressman Dennis M. Hertel